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ABSTRACT

The activities and materials in this Project NECESSITIES social studies unit (People, Places and Things) are meant to act as a framework by which the teacher may devise additional content material appropriate to her own students' unique background. The unit, devised for use with primary school students, has as one of its primary emphases the use of the student as an immediately available source of information about the people, places, and things in his environment. Arrangement of materials is, therefore, designed to move from the known to the unknown, from the simple to the complex, and from the concrete to the abstract. The sub-units presented in the document are (1) Homes; (2) Homes and Schools; (3) Geographic Relationships; (4) Animals on the Land; and (5) Economics, Technology, and the Land. A summary of revisions resulting from field-testing the unit in 5 schools is also included. (LS)

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PROJECT NECESSITIES

PHASE II

VOLUME II

PEOPLE, PLACES AND THINGS

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VOLUME II

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INTRODUCTION

Of the 13 weeks of social studies materials to be produced by Project NECESSITIES, it was decided that six weeks of lessons would be prepared for the primary grades centering around people places and things and starting with houses. Meeting with the permanent consultants and with Steering Committee members provided the overview which served as a guideline in developing this unit. A significant role in development of this material was also played by both the junior consultants--students from Northwest, Southwest, Plains, and Midwest tribes--and a senior consultant from Alaska, who represented the Aleut, Eskimo, and Alaskan Indian views.

The initial approach in developing this unit was to present material arranged sequentially in a series of concepts, beginning with the simple and working to the complex. Units were to be designed to flow from one grade to another; i.e., second-grade material would be dependent on the background of first-grade work, fifth-grade materials would build on specific information children had received up to and including the fourth-grade, etc. It was also decided that students should receive materials which dealt with subject matter in depth, rather than a broad survey of a wide variety of material.

Furthermore, it was felt that the "discovery" approach available through the use of the inductive process is extremely important. Comparison and analysis would be emphasized in the development of the units, by means of two types of questions:

1. Major question, which posed the initial problem or concept.
2. Sub-questions, which were supportive of the major questions and which required in-depth analysis by the students.

An additional challenge lay in creating materials which would be tribal specific and yet general enough not to offend tribal religious or cultural codes. To write specific curricula for each tribe was an unrealistic goal, since most tribes are composed of clans which have differing values and customs. A more efficient procedure was seen to be the creation of general stimuli with which each group could identify with and attach personal meaning to. Thus the individual becomes the resource which makes the curriculum tribal specific, doing so by imposing his values on and drawing from his experiences to interpret the material. It became apparent that to achieve the objectives established for the curricula, the materials developed would have to be entirely self-contained. All materials required to teach the units would have to be provided. The development and production of such materials then became the task for the Project NECESSITIES staff.

During the early stages of writing the unit, reports were received from liaison personnel indicating that reservation and BIA schools were bombarded with requests to field-test other existed a subtle competition in securing places for field-testing. It was recognized at this point that the product would have to be designed to maintain a high level of interest for both student and teacher.

Our attention then turned to packaging and format for the units. At this point, an interesting evolutionary development occurred. In the second phase, the unit was to be presented in "menu" form; that is, we would begin with a statement of the objective, followed by activities for the students, a list of materials and equipment needed by the teacher for the unit, a preparation outline, and finally a strategy which introduced the material in dialogue form and then led to major questions and sub-questions. This "menu" was to be written in the present tense.

After deliberation, it was decided that pilot units should be written in a past-tense narrative form suggesting to a teacher using the material that she was "looking into" another teacher's classroom. The narrative is supplemented by an outline establishing the sequence of activity modules, and the materials and equipment needed to teach each activity. The intention behind this decision was to promote the opportunity for each teacher to deal with the material with maximum creativity and in particular relation to her own students: their cultural background, individual skills, and previous learning experiences. The unit was revised accordingly.

In the Activity Module Outline the length of each activity is only suggested. The objectives of each activity have been moved to the end of each activity narrative and presented in the form of questions.

The Classroom Narrative itself is intended to be used as a catalyic guideline which creative teachers can use in developing a student-specific approach to the concepts presented. For teachers who feel the need for more structure, the Narrative can be read as an imperative by which a reasonable degree of learning can be assured.

The unit developed initially was composed merely of statements in story form by which the teacher might draw information from students. The application of such information would make the curriculum relevant to the needs of Indian and Eskimo children. It was felt, however, that less creative teachers would feel inadequate to improvise approaches beyond those suggested in the curriculum. Thus the evolution of the sub-unit was from a very loose, non-directive approach, to a moderately structured one, to a final version written in language which teachers might use verbatim in class. However, it should be noted that there is a great deal of flexibility built into the material, to be capitalized upon by teachers who have the skill to do so. Teachers should find that the material will adjust to their own abilities. For more detailed examples of this evolution of the material, see the original version of the unit used in initial field-testing, included in this volume

The materials to be used by children in this unit consist of six booklets, a pre-test and a post-test, a card-sorting game, and two sheets of drawings depicting activities and animal familiar to Indian and Eskimo children. The material is packaged in a portfolio designed to teach dexterity and manipulation skills. In order to get at the materials, the child must untie a shoestring, unzip, unbutton, unsnap, and otherwise deal with fastening devices. While not fundamental to the curriculum, this exercise provides a learning experience which relieves teachers of the responsibility of dealing with children's clothing, and helps the child become socially independent.

Production of the portfolio and its contents involved a series of complicated tasks. After its creation, design, illustration, and layout, production procedure was established. Paper stock was ordered, material were printed, and printed material was collated, bound and trimmed. Production was a time-consuming job in which all staff members participated. Printing, cutting, and scoring of the portfolio itself had to be jobbed out. Assembly required fifty separate operations and the portfolio itself contained eleven different materials.

Upon completion of production, the sub-unit was ready for field-testing. A total of five schools were involved in testing the sub-unit Homes . Two were public schools which receive Johnson-O'Malley funds, two were BIA schools, and the fifth school had a combined staff representing both public and BIA teachers. Nine teachers presented the sub-unit to 226 first graders. At the time of this writing, all schools have completed testing the unit. For specific data refer to Field-Test Reports, in this volume.

FOREWORD

This unit, People, Places and Things: Homes is designed to be taught early in the school year (preferably the first ten weeks of school) and is to serve as a continuation and expansion of concepts mastered in pre-primary or earlier primary levels.

It is designed to provide the Indian and Eskimo student with a knowledge not only of his own way of life, but also of the ways other people live. The activities and materials in this unit are meant to act as a framework by which the teacher may devise additional content material appropriate to her own students' unique background. One of the primary emphases of this unit is the use of the student as an immediately available source of information about the people, places and things in his environment. This allows "Indian and Eskimo input," which automatically establishes culturally relevant and tribal specific content. Regardless of its origin, however, content must be appropriate to classroom adjustment, to functional communication, and to the student as a member of a minority culture with a continuing impact on the dominant society.

The materials have been arranged serially in order to complement the psychological sequence by which learning occurs. Thus the order is directly related to the difficulty and complexity of the skills. Before the process of abstraction can become a functional skill, the ability to discriminate differences and similarities is essential. The arrangement of materials is, therefore, designed to move from the known to the unknown, from the simple to the complex, and from the concrete to the abstract.

The sub-units are as follows:

(1) Homes, which stresses development of the student's ability to discriminate differences.

(2) Homes and Schools, which emphasizes refinement of the ability to discern similarities and to deal with simultaneous discrimination. (People, places and things are different but still demonstrate similar attributes; things which are similar can demonstrate different attributes.)

(3) Geographic Relationships, which involves the student in detailed abstractions.

(4) Animals on the Land, which focuses on making detailed analogies and abstractions.

(5) Economics, Technology, and Land, which emphasizes analogies and generalizations.

Some students enter the first grade with more highly developed sequential skills and verbal facility than others. Nevertheless, all are required to perform similar tasks. The student who understands English and uses it well has an advantage: he can respond verbally to the questions raised in the classroom. The student who lacks sufficient experience with English may comprehend the tasks equally well, and yet be unable to express his understanding verbally. Often, an Indian or Eskimo student uses English only as a second language, but such a student can demonstrate his comprehension through the use of concrete attributes such as shape, color, texture, and size.

Early in the first grade, concrete objects which exist in the immediate environment of both home and school can be used to demonstrate the ability to discriminate. A student having uncertain knowledge of English will respond more successfully to those items which are familiar and exist within his own linguistic and experiential milieu.

Thus this unit introduces the student to spatial relationships, and uses concrete examples to foster the developmental skills required to comprehend more complex concepts. Simultaneously, the unit teaches social studies skills.

Social Needs of Primary Students

In order for a student to operate as an independent, confident, and skilled individual, he must not be coddled or overprotected by adults. Such treatment conditions dependence, not independence, self-doubt rather than confidence. It may also produce crippling uncertainty concerning abilities. The individual student's sense of self-worth can be developed by:

The provision of opportunities to deal with objects and persons in his environment to his educational and personal advantage.

The recognition by the student that he has skills, abilities, knowledge, and experience already realized within himself, and that these resources may provide "input" that is relevant to his academic experiences.

The provision of opportunities to learn to give, take, share, and function in group activities.

The understanding of the important influence of the student's culture on the dominant society.

The opportunity for fantasy, so that the student is free to use his creative imagination and to discover that things can be created from his ideas.

The opportunity for the student to adjust to the classroom social situation so that a healthy learning environment is created.

Considerations For Teachers

In order to meet these student needs, skills that lie within the abilities of every teacher should be utilized. As previously stated, a primary concern is the ability of the teacher to recognize materials and activities that are relevant to the student's own background and experience. Such materials are vital to the reinforcement of a sense of self-worth. This skill is preliminary to the teacher's acceptance of local Indian and Eskimo "input" which reflects the student's own cultural values. The perceptive teacher recognizes students as participants in the learning process who, as authorities on some aspects of their own traditions, values, and culture, can enrich classroom activities.

A complementary skill is the ability to create a learning environment which will accept the student's imagination and will encourage and direct it in creative channels. Such a skill also allows students to participate in designing behavior patterns for the classroom. A wholesome learning environment of this kind provides stimuli which successfully encourage the development of communication skills.

One of the most frustrating experiences for a student occurs when he expresses himself and this expression goes unrecognized, unconsidered or misunderstood. Gradual withdrawal of contribution follows such thwarted efforts and complete withdrawal from all academic involvement may result. This syndrome of defeat can be reversed by the teacher who develops listening skills which show students that what they say will be heard with respect, regard and consideration.

Objectives for Primary Students

By the end of the primary grades, the student should be able to:

Speak English so that his peers and teachers can interpret his meaning.

Express himself appropriately in class discussions.

Function as a contributing member of a group assigned to perform specific tasks.

Speak with the expectation that what he says will be considered by his peers and teachers.

Speak of his experiences outside school when such experiences are relevant to class discussion.

Concepts in these Units

People, Places and Things gives primary stress to the key concepts of land and social systems. Major sub-concepts of the unit are: home, family, the individual, the culture and its institutions. Secondary consideration is devoted to role, consumption and production. Each of these concepts are related to a basic understanding of the self, what is of value and how one survives and functions in todays society.

Unit Format

Materials for this unit are packaged for convenience in handling and storing. The loose-leaf feature allows flexibility for revisions and additions. The format allows the teacher to write comments about the Unit or notes which would help to improve or expand materials. The classroom narratives are written in reportorial form in the past tense. This technique is presented in "Journal" fashion in an attempt to provide interesting reading and hopefully to develop the imaginative involvement of teachers.

YEAR OVERVIEW

Units: Homes, and Homes and Schools

The first skill to be developed in these two units is the ability to discern differences.

What is the difference between home and school?

To develop this concept we have provided a series of questions designed to elicit student responses in such a way that the differences between the social structures and activities of home and school become apparent. They also provide insight as to how the child views his own social adjustments and behavior patterns both at home and school.

What do you like best about home?

During the child's description of his home he may mention some distinct cultural activities which he and the class may wish to pursue. Comparisons of contrasting cultural activities provides an opportunity to develop discrimination skills. Typical responses to this question may stretch across several concept areas which the teacher may wish to develop further. FOR EXAMPLE: A student may respond to the question with, "I like going with my dad on the trap line in the wintertime." This response alludes to a cultural activity, a heritage, a value system, and an economic pursuit which is determined by the land and reflects a subsistence culture. Another response might be, "I like home because my mother makes good things to eat." This may lead to preferential discriminations with regard to food. Or the teacher may wish to expand the comparison process with a comment such as, "I've never had that kind of food, but I like __________ which sounds a little different." Other answers to this question might relate to seasonal activities or activities of a specialized kind of life cycle: "Every summer we take the sheep to the mountains to graze"; "Every summer we go to the fish camp and I have lots of fun"; "I like to help my mom pick huckleberries." The teacher may wish to pursue such a discussion by asking what the family does at the fish camp, why the sheep are taken to the mountains, what animals the father traps. Continuation of the developmental process of discrimination of differences could follow a comment from the teacher which would invite further comparisons: "When I was a little girl, my family used to _________," or "Did you know that Japanese children often fish in the summer too? How do you suppose they do it differently than we do?" Other questions might include the following:

What does your home look like?

What shape is it? Is it round like a circle or square like a box?

Are the walls made of dirt, wood or rocks?

What is the roof made of? Are there windows?

What does it look like inside?

What do you like best about school?

What do you do at home that you don't do in school?

What do you do at school that you don't do at home?

What is the difference between the things you do at home and the things you do at school?

The foregoing teaches developmental skills in sequence while simultaneously developing social science concepts. This unit may be expanded with questions and content provided by the teacher. In order to maintain the focus upon the land, the home and immediate environments, questions are developed about animals, climate, terrain, places and people:

What kind of animals live near your home?

What kind of birds live near your home?

How are bird and animal homes different?

A developmental skill which can be derived from a student's ability to discern differences is the ability to discern similarities. The same sequence of questions may be used to develop this skill and to reinforce the previous social science concepts:

What things are the same at home and at school?

What do you do at home that you do at school?

What are the similarities between the things you do at home and the things you do at school?

If the proper background has been established through the teacher's contribution to class discussion, cultural comparisons may be drawn such as, "How are the summer activities of a Masai tribesman similar to those of Navajo tribesmen?" "What do you see that is the same about Eskimo fishermen and Japanese fishermen?" Responses to these questions might include abstractions regarding cultural comparison of subsistence patterns. For instance, the Masai and Navajo are both herdsmen, both migrate seasonally according to available forage and water supply, both move in small family units.

A third developmental skill which follows from the previous two is an ability to distinguish differences and similarities within the same two objects, patterns of behavior, or concepts. For example: Eskimos and Japanese both harvest fish. However, the Japanese may use a trained cormorant, while the Eskimo uses a drift net. There are cormorants in Alaska, but they are not used for fishing. Both groups consume fish and fish products. However, the Japanese frequently eat raw fish, while the Eskimos prefer their salmon smoked. This principle can be related to objects that exist in the local area. A peach and a baseball are both round, both have a cover, both have a hard core. However, their functions and utility are different. Their colors are not the same. One is manufactured, the other grows naturally. They have different textures. Some questions which might elicit discussion on the nature of simultaeous discriminations are: In what ways are school and home alike, and how are they different? They are both buildings with walls, roofs, doors and windows. But their interiors are different, and the size of the two buildings usually is different. If the teacher wanted to move into the concept of behavior patterns, she could draw out the fact that there are opportunities for play at school and at home, or that students may eat and also learn in both places. However, behavior tends to be more structured or scheduled in the school than at home. There is an emphasis on different functions. At school the emphasis is on the acquisition of, or development of, academic skills. At home the emphasis may be on learning family ways, developing skills that assist in doing the chores, or in the general operation of the household.

It is imperative that the teacher be willing to accept the answers to the foregoing questions the student may offer. A crucial understanding, essential to the success of the Unit, is that the questions must be open-ended. The answers that we have suggested might be given but should not be anticipated or deliberately sought. The discussion must proceed on the basis of the responses that the student wishes to make.

Sub-Unit: Geographic Relationships

Sub-concept questions about geographic relations (around the Home and School)

What are Geographic Relationships?

The student needs to understand this concept to read relief and topographical maps. Before he can perform such a task, he must be able to identify his position by relating it to two known reference points.

Where do you sit in class?

The intent of this question is to allow the child to demonstrate where he is located in relation to the teacher's desk and the blackboard. A model of the classroom is provided either in the form of a cardboard box or a sandbox. Wooden blocks may substitute for desks, seats, blackboards, doors.

The student determines his position by locating, in the model, at least two other known positions. He is then able to answer the question with reasonable accuracy. Once the student has located his position in class, the teacher should ask him to locate other persons or things, always in relation to two known positions.

Who sits closest to you?

Who sits farthest away from you?

Where do you sit?

Where does Sam sit?

Where is the drinking fountain?

Where is the door?

What are you sitting near that is different from what Sam is near?

What are you sitting near that is the same as what George is near?

These questions are to be asked of the students working on the simulated classroom. This classroom model should be of the same shape as the classroom itself. If the classroom is square, the model should be a square. If the classroom is rectangular, the model should be a rectangle. It may be appropriate to make the model to exact scale.

Another exercise might involve reconstructing the terrain about the student's home by using specific landmarks such as trees, roads, mountains, gullies, streams, beachlines and fencelines.

The student can position his home according to these landmarks. This activity might be centered about a sandbox. The sand offers the features of a relief map. Small objects can be used to simulate landmarks such as trees and fencelines. If a sandbox is not available, soil and snow may serve to give relief features to terrain.

Half of the sandbox can be used to illustrate the terrain around the home and the other half to reconstruct the landscape about the school. Wooden blocks can illustrate the size and height of buildings. Features such as walkways, parking lots, and playground should be contributions made by the students. They may also have to determine whether the land and structural features have been positioned properly.

With the model of both the home and school and their respective terrains before them, the students are ready to answer questions. The teacher should list all answers to the following questions for future discussion.

How is the land around home different from land around school?
How are the landmarks around home different from landmarks around school?
How is the land around home the same as the land around school?
How are the landmarks around home the same as landmarks around school?
In what ways is the land around home and school the same and how is it different?
In what ways are landmarks around home and school the same and how are they different?

As student experience in constructing replicas of various kinds of terrain reaches a climax, the teacher may want to lead the students to consider how climate affects the fact of the land. He might begin by contrasting climate, land, and culture. For instance, he might tell about life along the Amazon River:

"The vegetation grows so fast that roads which aren't used frequently become so overgrown that they disappear. Almost all landmarks are hidden by heavy vegetation. Out of necessity, the people use rivers and streams for travel. It's easier to travel on water than to cut a trail through the jungle.

"Plants and trees grow quickly because of the heat and the rain in this climate. The jungle steams with humidity. Because it is so hot and humid, the people wear little clothing. Their homes have roofs, but no walls. The roofs are needed to keep off the heavy rain. The walls are left open so breezes can help cool the people who live there. The roofs are held up by wooden poles, and are made of big leaves and grasses, tied together tightly to keep out the rain.

"Some natives live near schools, but school is usually held only once or twice a week. This is because there are so many children and so few teachers that the teachers must travel from village to village, holding school for only a day or two at each one. When the native children are not in school, the fathers teach their boys how to hunt and fish. Native women teach their girls to find plants, fruits, and roots in the jungle that are good to eat. The girls also learn to prepare the food they have gathered.

"Some villages are so deep in the jungle that they have no schools, because teachers can't reach them. When this happens, the native children only learn how to hunt, find food, and live in the jungle."

If this comparison is presented to children representing Southwestern tribes and the school is located in the Southwest, the following approach can be used: The teacher may at this point say, "Name some differences between our climate and the Amazon climate." One of the responses may be, "The Amazon has lots of rain."

Humidity can be described to the student as moisture or water in the air. Clouds illustrate this point. They have water in them. This principle can be demonstrated by having the children cup their hands and place them over their mouths. Then have them exhale into their cupped hands and quickly rub their hands together. They will feel that their hands are slightly wet. This demonstration helps the student understand humidity as moisture suspended in air. When so much moisture fills the air, dark and heavy clouds form; then we have rainfall. The one variable lacking in the Southwest which is present in the Amazon is the extensive rainfall and high humidity. If the Southwest had as much rain as the Amazon, the face of the land (terrain) would be changed drastically. People would eat different foods, wear different clothes and live different lives.

Each of the above differences should be elaborated so that the students can visualize the contrasting ways in which their lives would be affected.

How would the land around school and home look if we had as much rain as the Amazon?
How does the land around home look now?
In what ways are the Amazon land and our land alike and how are they different?
In what ways would landmarks around the school be changed if we had as much rain as the Amazon?

Have the student use the sandbox to demonstrate which landmarks (such as hills) would still be seen and which (such as trees, distant houses, fencelines) would become hidden by vegetation.

In what ways are homes in the Amazon different from homes here?
In what ways are home here the same as homes in the Amazon?
How is the school different in the Amazon?
How is school the same as in the Amazon?
How are schools here alike and how are they different from schools in the Amazon?
What do you learn at home that is different from what Amazon children learn at home?
Can you find where Amazon children live on the map?
Can you find where we live on the map?
Do we live close or far away from the Amazon?

When looking at the map, the teacher should be sure that the students have some familiar range of distance to use as a scale which will help them understand distances as revealed by maps. They may be familiar with the distance between the two marks on a map which represent their home and the nearest city. The teacher can then point out how much farther it is from home to the Amazon.

Other questions may be developed which center about flora and travel along the Amazon. Or, if the teacher is more familiar with other areas which could serve for purposes of comparison, a substitution easily can be made.

Sub-Unit: Animals on the Land

How do climate and terrain determine where animals live and how they live?

This question will allow children to draw analogies between the effects that climate and terrain have upon both man and animal. It uses skills learned in the previous lesson to help students make the abstraction that both men and animals are conditioned by climate and terrain.

What animals live around your home?

Obvious responses to this question might include domesticated animals such as pets and livestock. Wild animals, birds, reptiles, such as lizards and snakes, should also be included. This variety of animals now provides opportunities for developing comparative questions about the ways animals are alike and different. There are available photos, films and filmstrips, magazine pictures of the animals. Such media are essential in order for the student to make visual comparisons.

By exploring differences between such things as a dog's teeth vs. a sheep's teeth, rabbit's paws vs. goat's hooves, horse's hooves vs. sheep's hooves, discussion may center about reasons for differences. These examples provide opportunities for discussing animal relationships to the land and comparison with men's adaptation to the land.

Each characteristic which distinguishes one species of animal from another may then be attributed to the adaptations each species has made to specific climates and terrains. For example, mountain sheep are more adept at living on steep rocky mountain tops than are horses or buffalo. The lizard of arid western states prefers living on the southern slopes of mountains. Southern slopes are hot and dry. Squirrels prefer the northern slope of that same mountain, which has trees and shrubs. So within the radius of a few hundred yards there are two varying environments. Each provides contrasting habitat for animal life. One reason for the differences between the two slopes is that western states receive most of their moisture during the winter. The sun in the winter does not travel directly overhead because the earth tilts away from the sun. Consequently the winter sun is low on the southern skies. The snow which falls during the winter melts and dries on the southern slopes of the mountains. The sun cannot reach the northern slopes so the snow gets deep. The deep snow stays long into spring and melts slowly. This slow melting provides moisture which grasses, shrubs and trees need during early summer. The leaves of these plants give shade to the ground so that the sun does not dry out all the moisture from the soil. So it is that on the northern side of mountain slopes trees and shrubs grow and it is cool.

The south side of that same mountain has no trees and shrubs and it is hot and dry. Lizards need the hot sun to live because they are cold-blooded animals. Squirrels need trees in which to make their homes and acorns and pine nuts to eat. So even though both live on the same mountain they live in different terrains and climate, they eat different foods and they need different amounts of water to sustain life. Although they occasionally visit each others' side of the mountain, they live best on their own side.

The Blackfoot tribe has a legend about how animals were created. The legend tells how animals were made and why they live where they do. (Before the teacher tells the story, she should give each child a piece of clay. Children should be directed to work with the clay any way they wish.)

> Long ago when there was only darkness and all things were yet to be made, The Great One had to have a helper, and He called him Napi. The Great One was making the earth and the sky, and so He told Napi to make some animals and birds to put upon the earth. One day Napi was sitting by the water, smoking his pipe and thinking about the animals that The Great One wanted him to make. As he was thinking, he began to play with the mud by the water.

After a long time Napi had made many little things out of the mud and put them on a rock. Napi said to himself, "I think these funny little things I have made must be animals." He took one of the funny things in his hands, blew smoke from his pipe on it and said, "You are a buffalo. Go to the mountains and live on the rocks." One by one he blew smoke on the animals and told them what they were and where to live.

Napi was very much pleased, so he went back to The Great One and told him about all the animals he had put on the earth. The Great One was putting stars in the sky and could not go to earth to see the animals. He said to Napi, "Go back and see if you have done a good thing. I will come and see your animals as soon as I can." Napi went back to earth, sat by the water and smoked his pipe and after a while all the animals came to him. They did not seem very happy. The buffalo was the first to speak. He said, "Old man, you do not do things right at all."

"I blew smoke on you and made you alive. What more do you want?"

"The mountains are full of rocks," said the buffalo. "I cannot walk on the rocks with the kind of feet you gave me. I like grass to eat. There is very little grass on the mountains. I am not happy in the mountains."

Then the deer spoke to Napi, "Old man, you told me to live with the buffalo in the mountains. I do not like the mountains. I cannot run on the big rocks."

All the other animals began to talk at once. Napi knew that not one of the animals was happy where he told them to live. Napi and the animals sat by the water and talked. Napi asked them what they liked to do, what they liked to eat, and where they liked to sleep. And then Napi sent the animals to live on the earth where they would be most happy.

He sent the bear to live in the woods and told him how to go to sleep when the snow came. He sent the mountain lion to live in the mountains and the deer and the buffalo to the grass country where they could run and find good grass to eat.

When all the animals had gone away, Napi said, "I have seen the earth and it is good. I will live in all places on the earth." And that is why the animals live on that part of the earth where they are happy. And so it is, man lives on all parts of the earth.

That is how man and animals came to live upon this earth.

By using the preceding models, this teacher might compose a systematic sequence of questions which would help children discern differences, notice similarities, and abstract understandings from known experiences. These can relate to the unknown subject. e. g., Of all the animals there are in the world which one would you most like to be? What could you do, if you were that animal, that you can't do now?

Sub-Unit: Economics, Technology, and the Land

How does the land provide us with food?

Because man has a mutual relationship with animals he can live anywhere, taking livestock with him. Man and his animals support one another. Animals will work or provide food. Man provides food for the animals, and when necessary, shelter. Many people who are dependent upon wild game or a specialized natural resource, such as salmon are restricted by the location of the resource. They must be where the resource is.

At the most elemental level, a subsistence type of culture develops. At more complex levels, involving readily available transportation and communications systems, and where surpluses of both natural and manufactured goods may be distributed, an extremely complex system generally evolves which strives to control production and distribution of goods.

Many Eskimo and Indian students will be residents of rural areas and many of their families will be involved in industries closely related to subsistence pursuits. Farming, fishing, hunting and trapping are typical activities though they may no longer represent the major source of income. The major concept question of this unit thus becomes: How does the land provide us with food?

In order to demonstrate the differences between economic ways of life, a comparison of a subsistence economy (fishing) and a more complex development of the same industry (commercial fishing) can be presented in story form. (The teacher can substitute other suitable parallels.)

Subsistence Economy

There is a village in Alaska which is named Shageluk. This village is about 300 miles from any road. People receive mail and supplies by boat or airplane. In the village are the homes of the native people, a school, and the place where a white missionary and his wife live. The people of Shageluk live by hunting and by fishing for food. Men earn money by selling furs of animals they have trapped. Women earn a little money by making baskets out of grass and selling them to the trading post.

The amount of money men and women earn by trapping and selling baskets is very little. They depend on hunting and fishing as the main activities to sustain life.

The village of Shageluk is on a river. In winter most of the fish in this river swim downstream. In the spring the warm air and the sun melt the ice on the frozen river. When this happens the water gets warm and the fish start to swim up the river past the village. Shee fish, salmon, whitefish, tom cod, smelt, and pike are some of the fish that live in the river. The people of Shageluk dam the river with small trees, shrubs, and willows. The fish coming up the river have to stop to find a way past the dam. More and more fish gather at the fish wall. Each one is trying to find a way past the barrier. There are so many fish that the people of Shageluk can catch enough fish to last the whole year. Men and women and children spear and net fish that they will eat or feed to their dogs. Most of the fish will be split and hung on racks to dry. After a few days of drying they will be put into sheds where smoke from constantly burning fires will smoke the fish, giving it a distinctive flavor and preserving it for the winter. Since the people of Shageluk have many dogs, they must have many fish in order to feed their dogs throughout the long winter. Next year the people of Shageluk will once more build a fish dam so that they may have food for themselves and their dogs.

The teacher may wish to reinforce what the children have heard to this point. Some discussion questions which center around the subsistence activities of the people of Shageluk are suggested below:

How does the land provide us with food?

What do the people of the village have to do to get the food?

What do the people of Shageluk eat?

What do the people of Shageluk use to catch fish?

What other ways are there to catch many fish?

Why don't the people of Shageluk sell some of the fish they catch?

Commercial Fishing Economy

Egegik is a village on the sea. It is located on Bristol Bay in Alaska. The people there call themselves Eskimos and Aleuts. A few white men live there too. During the summer many of the people go down to the beach to fish. They use a set net to catch salmon. This is a kind of dam, a nylon mesh net which is anchored at one end on the beach. The rest of the net is allowed to float in the water. Salmon swimming along the coast run into the net. They are caught in the mesh which slips over the head of the salmon and catches behind the gills. When the nets have many fish in them, the men, women, and children all pick the salmon out of the nets.

A few of the salmon are kept for food. Some of them will be given to the pet dogs in the village. Those that are kept may be smoked, frozen, salted, or cooked and eaten while still fresh. Most of the food for the people of Egegik comes from the local store, however, and so most of the salmon are sold to a cannery. The money from the fish will be used to buy food at the store or for other necessities.

The fish that are sold to the cannery will be cleaned, put into cans, cooked and eventually sold to people in other parts of the world. The people of Egegik no longer have many dogs for pulling sleds. They use snow mobiles.

Children in Egegik enjoy the summers on the beach. Though the work is sometimes hard, there are many hours to play, explore and have a good time. Each year during the summer the salmon will come along the beach at the same time. Families in Egegik can depend upon the salmon to provide them with food, fun, and money to buy the things they need.

Questions that grow from this story should progress from reinforcement of what the students have learned about the village of Egegik to a comparison between the two types of economy; e.g., a sequence might run like this:

How do the people of Egegik earn most of their money?
How do the people of Egegik catch salmon?
What do the people of Egegik buy with the money they make by selling their fish to the cannery?
Why don't the people of Egegik use small trees and willows to make a dam to catch fish?

Why do the people of Shageluk keep their fish?

Why do the people of Egegik sell their fish?

Why do the people of Shageluk still use many dogs to pull sleds?

Why do the people of Egegik use snow mobiles instead of dogs?

How are the methods of keeping fish in Shageluk the same as in Eugegik?

What are the differences in keeping fish in Shageluk and Egegik?

Would you like to live in Shageluk for a summer? Egegik?

Why? Why not?

UNIT TITLE: PEOPLE, PLACES, THINGS

SUB-UNIT TITLE: HOME

LEVEL: Primary

SUGGESTED LENGTH: 15 Activity Modules

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrativ detail o page no.
1	*	ACTIVITIES PORTFOLIO EXPLORATION Introduction to the use of the Activities Portfolio containing Activities Packets 1-6. The students are encouraged to explore its contents. They will decorate the outside of their Portfolio with people and homes which are colored, cut out, and pasted on.	Crayons, Scissors, Paste Activities Portfolio with prints of people, animals and homes located inside, right side section.	none	
2	*	Card Sort Discrimination Games A non-verbal activity requiring discrimination of geometric shapes and sharing to complete the game. Designed to serve as a motivating activity for the Pre-test	Packet 1	none	
3	*	Pre-test Administer to determine abilities of students to discern differences and similarities. Both verbal and non-verbal questions are used. Results are entered on Evaluation Record Form as basis for comparison with Post-test results at the end of the sub-unit.	Pre-test in Activities Portfolio Pencils	none	

NOTE: The length of each activity module, and consequently of the entire sub-unit, must be dictated by the pace at which students progress and the depth to which the teacher wishes to pursue the development of understanding and skill in students.

project NECESSITIES

UNIT TITLE: PEOPLE, PLACES, THINGS

LEVEL: Primary

SUB-UNIT TITLE: HOMES

SUGGESTED LENGTH: 15 Activity Modules

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narr. detai. page
4		Animal Differentiation Discrimination exercise designed to teach identification of differences using pictures of animals. At the completion of the activity students may color the animal pictures to help refine eye-hand coordination.	Packet 2: Drawings of sheep, rabbits, horses Crayons for coloring animals (Overlay transparencies of animals in Packet 2)	OH	
5a		Homes Discrimination: Exteriors Functional application of discrimination skills by making verbal contrast of different homes and their surroundings. 1. The first day's activity includes a description of exterior features of homes and their immediate surroundings, followed by related differences.	Packet 3: Drawings of Hopi Homes, Navajo Homes, Contemporary Homes, Summary Homes Drawing (Transparencies of above drawings)	OH	
5b		Homes Discrimination Continued: Interiors 2. The second day is concerned with descriptions of the interiors of homes. What is in the home? Where are things located? Children will diagram a rough floor plan of their home, cut it out, mold clay to shape furnishings, and position shapes on floor plan. This is followed by comparing differences in different home interiors.	Paper, Scissors, Clay, Pencils	none	

UNIT TITLE: PEOPLE, PLACES, THINGS
SUB-UNIT TITLE: HOMES
LEVEL: Primary
SUGGESTED LENGTH: 15 Activity Modules

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
5c		Homes Discrimination: Summary 3. The third-day activity summarizes the activities of the two previous days. Students will color the drawings of homes in their Packet 3. As they color they will be asked to describe the different characteristics of each drawing.	Packet 3 Crayons (Transparency of summary drawing)	OH	
6		Homes Differences To describe the functional reasons for differences in homes and to discuss the strategy for selecting a home site. The activity will conclude with the students drawing two different kinds of summer homes.	Packet 4: Drawings of a Shadow Home, and Other Homes Pencils and Crayons (Transparencies of above drawings)	OH	
7		Homes Role-Play Activity A role-play activity, "Get the Horses Into the Corral," which centers around the home: a) agree on story, b) set up location of corral, c) plot shape of corral, d) choose roles, e) act out story	None	none	

TITLE: PEOPLE, PLACES, THINGS
UNIT TITLE: HOMES
LEVEL: Primary
SUGGESTED LENGTH: 15 Activity Modules

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity Days	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrativ detail o page no.
8	3-5	Animal Homes 1. View film "Animal Homes." 2. Discuss the different kinds of homes animals build. 3. Identify which animals live in which homes. 4. Draw a picture of two animal summer homes.	Packets 5 & 6 Film "Animal Homes" available from: Bureau Wide Film Service P.O. Box 66 Brigham City, Utah 84302 Summary statement of film Transparencies for above Packets	16MM OH	80
9	2-3	Homes Art Activity Student draws or paints a picture of his home in the space provided in Packet 3. Drawings are to emphasize unique features of homes.	Crayons, or paint brushes, water colors Packet 3	none	84
10	2-3	Homes Story Activity Student tells a story about his drawing or painting. He will be asked to include description of the unique features of his home.	Student's drawing of his home in Packet 3	none	87

project NECESSITIES

TITLE: PEOPLE, PLACES, THINGS
UNIT TITLE: HOMES
LEVEL: Primary
SUGGESTED LENGTH: 15 Activity Modules

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity Days	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrative detail on page no.
11	2-4	Other Homes 1. View films: a. "A Boy of the Navajo" b. "African Girl, Malobi" 2. Discussion of films center homes, family life, food, climate, clothing--of the two children in the films.	Two films: "A Boy of the Navajo," and "African Girl, Malobi" available from: Bureau Wide Film Service P.O. Box 66 Brigham City, Utah 84302	16MM	90
12	3-5	Other Homes Dicussion and Drawing The cross-cultural comparison of Ibo and Navajo life with the student's is further refined by having the student recall interesting portions of the film, "African Girl, Malobi." Students are then asked to compare a drawing they make of an Ibo home with the drawing made earlier of their own home.	The last pages in Packet 3 may by used to draw an Ibo home Student drawing of his own home in Packet 3 Crayons	none	93
13	1-2	Post-Test Administer to determine progress of students in their ability to discern differences and similarities. Both verbal and non-verbal questions are used. Results are entered on Evaluation Record Form and compared with Pre-test results from beginning of unit.	Post-Test	none	96

Activity Narratives

A NOTE TO THE TEACHER ABOUT THE USE OF THESE NARRATIVES

The following narrative is not meant to be a strait-jacket!

On the contrary, the narrative of classroom activities has specifically been written in the past tense so that you can "look in" on another teacher's classroom and see the way she chose to teach these materials.

There is no way to replace the critical role that teacher and student imagination play in making the classroom a place of real learning.

You may find that some activity modules will take two or three times as long as suggested. Others may take less time. You may also find that some of the activities need to be revised to meet the specific needs of your students: their cultural background, their individual capacities, and their previous learning experience.

The Project NECESSITIES staff hopes that as you "write" your own narrative of the day-to-day interchange in your classroom, you will share with us new ways that you and your students have found to make the following activities come alive. Perhaps in later versions of the narrative, others can benefit from your creativity.

CLASSROOM NARRATIVES

ACTIVITY ONE

The activity began when the teacher laid on each student's desk a folder containing the packet materials for the sub-unit: "Homes." She informed students that the folder they received was theirs to use. The folder contained materials such as picture books and different shaped cards, which they would use in the activities to come.

The instructor explained that different materials were in holders called "packets." Each packet had a number on it. There were six packets in each folder. This first day the materials to be used were the packet as a whole. The teacher demonstrated how to open the folder by untying the lace. She held the folder so all could see and pointed to packet number 1. After all the students had untied their folders, she said, "Take out this long card strip from this pocket. Now, we will unbutton this envelope on the left side of the folder to take out these cards."

The students followed instructions. They removed the long card strip which had different shapes printed on it. The students then unbuttoned the little envelope and removed its contents. They were told that the card strip and the cards were a set of materials which were named "packet number 1."

The students were allowed to examine and ask questions about the materials in packet 1. When interest was at its peak, the instructor asked her students to return the cards to the envelope and button the envelope. She then asked them to fold the card strip and put it back in its pocket.

One student commented, "This is my suitcase."The teacher expanded on the comment by comparing the function of the suitcase, portfolio and a businessman's briefcase. Students were encouraged to listen to the differences in sound between a zipper, snaps, Velcro, and the sound of a shoestring sliding through an eyelet. Students noted that metal fastenings made hard noises. Metal snaps felt cold and hard while cloth,Velcro and shoelaces felt warm and soft and pliable. The discussion continued with the teacher focusing the content around statements made by students.

She next asked her students to point to packet number 2. They continued to explore each of the six packets one by one. After each packet had been examined and the contents discussed, the instructor demonstrated that the folder was designed so that packets 1, 2 and 3 were located on the left side and that 4, 5 and 6 were on the right side. The back of the folder had a zipper which divided the folder into separate halves when completely unzipped. When the students were working with packet number 1, they could more easily handle half the folder. The children were asked to unfasten the folder and to store the second half of the folder having packets 4, 5 and 6 in their desks.

The teacher then gave each child paste, crayons and a pair of scissors. The students were shown that on the left side of their folder were drawings of people, homes and animals. They were told to cut out the drawings, color them and paste them on the cover of their folder. Students were not required to cut out every picture. The selection of pictures which were colored, cut out and pasted onto the portfolio was left to the discretion of the student. However, individual students who required additional exercise in eye-hand coordination were encouraged to group together and complete all of the coloring and cutting exercises. The teacher encouraged and directed the students, but allowed them to work the activities on their own. After all had finished, they talked about their work with the teacher and other members of the class. Once the folders were decorated, each child had a folder which was uniquely his own.

The entire activity required three days to complete. The first day was spent exploring the portfolio. The first day, each student also printed his own name on the cover of the portfolio so that it could be easily identified on succeeding days. The students colored, cut out, and pasted pictures on their portfolios on the second day. The third day was spent discussing and comparing the work they had done on their folders.

ACTIVITY TWO

Before beginning this activity the teacher divided her class into three groups. Two groups were given a seat assignment to color the pictures of summer homes in packet 4. A variety of colors were used. Careful attention was to be given to details and coloring within the lines. As the first two groups were coloring, the teacher gathered the third group around her in a circle and began the card sorting exercise.

She first signaled to three students to step up and stand beside her. The students were aware from hand signals that they were to bring the materials in Packet 1 with them. The teacher had already printed each child's name on the name card in his folder and the name space on the symbol-matching strip. Then she taped her own and the three students' symbol-matching strips on the blackboard (bulletin board) so that all the class could see them.

The four sets of cards were shuffled by the teacher and each player (including the teacher) was "dealt" six cards. The teacher turned one of her cards over and showed it to the three players and to the class. The card was a geometric shape which she placed over the matching form that appeared on her card strip. The next card was a "name" card having one of the children's names on it. She put this aside and turned over another card which she was able to use on her symbol-matching strip. Because the 24 cards had been shuffled, the teacher lacked the necessary geometric forms to complete her strip. In order to find the needed card(s) among the other players, she pointed to empty places on the strip and then at the other three players indicating that they should look through their cards and give her the necessary cards needed to complete her strip. Whenever a student gave her a card, she would give back one in trade to the student.

When the teacher filled all the forms on her card strip, she gestured to another student to complete his strip by turning his cards over, trading, etc. Each student in turn completed his card strip as the teacher had, thus demonstrating the game before the entire class. It must be kept in mind that this whole process took place without the assistance of words.

She took the cards of each student in the group to make a "pack," shuffled the pack, and then gave it to one student and gestured that he should deal the cards so that the group could begin playing the game with their own materials.

In order for each student to complete his card strip, he necessarily gave close attention to discrimination. He silently shared information through gesture. He traded cards with members of his group. He manipulated cards in order to complete his task. The teacher used the exercise to encourage children to identify both their own name "shapes" and other children's in each group.

As the group engaged in the task, the teacher circulated and by facial expression and gesture gave help and encouragement to individuals. As the group completed the activity, the teacher checked the efforts of each student. At the end of the exercise the group returned to the desks and began coloring. The second group stopped coloring and became involved in the card sorting activity. When the second group completed the exercises, the third group met with the teacher and so by rotating groups from one activity to another the entire class performed the card sorting exercise.

ACTIVITY THREE

Pre-Post test

The Pre-test portion of the Pre-Post test is to preview the abilities and skills children possess. It should be considered as a "before" sample. It should not be considered a test in the usual sense inasmuch as no evaluation of classroom learning is attempted.

The Pre-test or Preview was designed to inform teachers what the child already knew and did not know.

Its intent was to provide teaching focal points in areas of learning that need emphasis. It also assisted teachers in designing efficient individualized learning programs.

The Post-test portion of the Pre-Post test does evaluate the influence of school, class, teacher and curriculum on the student. It is administered at the end of the Sub-Unit "Homes," and is considered an after sample (what students have learned since the beginning of school).

The function of the Pre-test or Preview should not be confused with that of the Post-test. There are two parts to the test, verbal and non-verbal.

The non-verbal portion of the Pre-Post test is given in small groups of 4 or 5 students. This test is divided into three major sections.

1. Differences
2. Similarities
3. Similarities and Differences

There are a total of six evaluations related to differences, two evaluation comprise similarities and two evaluations compose similarities-differences. The evaluations are presented in order of difficulty. For example, in differences, we begin with the simple (1-a), and end with the difficult (1-f).

The following are suggested directions to be read to the students. The teacher may create her own questions or statements for directing test activities. When doing so, simple words and short sentences must be used consistently and verbatim. Once the content for directions have been decided upon, the teacher may hand write them on her pre-post test card stock so that each direction accompanies it's evaluation. Thus allowing tests to be administered efficiently.

1. Suggested directions for differences.

    1.a - Circle things that are different.

    1.b - Circle the one that is different.

    1.c - Circle the one that is different.

    1.d - Circle the one that is different.

    1.e - Circle the one that is most different.

    1.f - Circle the one that is most different.

Suggested directions for similarities.

    2.a - Circle things that are the same.

    2.b - Circle the one that is the same.

3. Suggested directions for similarities and differences.

    3.a - Circle things that do the same, but are different.

    3.b - How are these homes alike? How are they different?

The verbal portion of the Pre-Post test is given in small groups of 4 to 5 students. The group asked questions in the order listed below. First differences, then similarities and finally questions related to similarities and differences. Record a tally of individual responses according to directions described in Activity #3 for Pre-Post test recording of student responses.

Differences

1. Name two things that you do.
2. Name two things that other children like to do.
3. Name two things that you do which are different.

Similarities

1. What are two things that you do at home?
2. Name two things that children in other lands do at home.

Similarities and Differences

1. How is a fork like a spoon?
2. How is a fork different from a spoon?
3. How is home like school?
4. How is home different from school?
5. How is an Eskimo like an Indian?
6. How is an Eskimo different from an Indian?

The teacher may hand write these directions on her Pre-Post test card stock.

Children often panic at the thought of taking a test, but are eager to play a new game. Knowing this, the teacher was able to accomplish two goals at the same time:

> She was able to determine from the results of these tests the extent to which her children were able to perceive and manipulate differences and similarities, and she was also able to interest her students in looking carefully at designs.

Having reviewed the test, the procedures for grouping students, correcting and recording test results in the Evaluation Procedure, she walked into the room. "Good morning. Today we are going to play a game with designs. Have you ever seen designs such as these used to make things pretty?" she asked as she drew some familiar symbols on the blackboard. There was silence in the room, as the children were always somewhat shy at the beginning of a discussion. "What about this picture?"

"My father has a blue eagle on a bolo tie he wears," said one boy.

"I bet that looks handsome," said the teacher. "Many pretty designs can be found in beadwork and jewelry."

The discussion then went on to rugs and wall hangings. At a convenient stopping point, the teacher then drew a pair of similar designs and a pair of different designs to demonstrate the difference between "look alike" and "different."

"Now we will begin the game. In this game we will look at two pictures at a time and decide whether the two pictures are different or whether they look exactly alike."

The teacher then divided the class into groups of 4-5 students and gave each child a black crayon and asked them to take their Pre-Post test from their portfolio. Each student already had his name written on it. As the children began going through the test, looking at the pictures and circling differences, the teacher circulated to answer specific questions. She noticed that one child was not looking at the test. She smiled at this serious little girl whose large eyes avoided her and walked over to her desk. Very slowly, in simple terms, she repeated the directions and helped her with the task. After the child began to work, the teacher was careful to make sure that she, as well as all the other students, had finished the section before they went on to the next one.

When all students had completed the non-verbal portion of the Pre-Post test, their teacher instructed three students to collect the tests (the name of each student was previously recorded on his Pre-Post test card stock and in the Evaluation Record Form in the Classroom Journal, and place them on her desk. Students were then instructed to take out packet 2, "Animals We Know," from its folder. She showed them her packet, which she had previously colored and asked them to color the animal pictures in the book, using only lighter colored crayons, so that none of the lines on the drawing would be obscured. The teacher also explained that the objective of the exercise was to help train the eye and hand to color inside the lines of the drawings.

All groups began coloring except one which was administered the verbal portion of the Pre-Post test. She asked this group questions from the Pre-Post test which required students to give verbal responses. As each gave answers, the teacher tallied each individual response on her Evaluation Record Form. She would ask other students in the group to add to previous comments. As they spoke the teacher recorded the correctness of each response. Henry gave seven responses which the teacher tallied as ~~////~~ // in her test record under the verbal portion of the Pre-test entitled "Tallied Verbalizations." When correct answers were given a tally mark (/) would be placed to the right of the word "correct." Tallies for correct answers and number of responses were kept separate and totals for each were recorded in the appropriate box. At the completion of the verbal portion of the Pre-test. Henry's test record appeared as follows:

	Evaluation Record	
Group 1	Pre-Test Portion	Post-Test Portion
Name	Non-verbal	Non-verbal
Henry Begay	________%	________%
	Tallied Verbalization	Tallied Verbalization
	~~////~~ //___[7]	________[ ]
	Correct	Correct
	///______[3]	________[ ]

Out of a total of ten (~~////~~ ~~////~~) responses which Henry had made, three (111) were correct.

At the completion of the test this group was directed to begin the coloring activity. The teacher picked another group and asked it to stop coloring while she gave the verbal portion of the test. Systematically, the teacher tested one group after another while others were coloring, until the entire class was examined.

That evening she corrected the non-verbal portion of the test and separated them into three sections:

Differences
Similarities
Similarities and Differences

She made note of the areas in which the students demonstrated the most difficulty and planned to spend more time in those areas. She also made note both of the students who had done well and of those who had done poorly, so that she would know:

What to expect of each child.
Which children needed the most help.
Which children might be able to tutor others during the unit.

ACTIVITY FOUR

This activity was designed to foster the student's ability to perceive and describe subtle differences between pictures of animals with which he is familiar. The teacher prepared for it by utilizing the Pre-test results of the previous activity to identify students who had difficulty in discriminating differences. Those students who demonstrated an ability to discriminate were included in this activity's exercises but were given only the most challenging tasks.

Before the class began, the teacher arranged that an overhead projector would be operational at the beginning of the class. She also reviewed Animal Packet Number 2 (sheep, rabbits, horses). Each of the packets was composed of a series of pictures which were numbered to indicated the sequence of difficulty and the order of presentation. The order which she followed was: 1. sheep, 2. rabbits, 3. horses.

When the class began she showed the first set of pictures. Picture Number One illustrated two sheep and one goat. The teacher reminded the students of the card game they had previously played in which they had to tell how well they could see the differences. She told them that this day's activity was a similar kind of game and asked which of the animals pictured was different. She allowed time for the students to offer as complete a response as they were able. When one student first indicated which of the animals was different, the teacher pursued his answer by using questions such as:

> How is it different?
> What is the name of that animal?
> How is its shape different?

The teacher felt the questions, "How is its shape different?", would not be understood by her students, so she rephrased it to read, "How does it look different?" The children responded well to the rephrased question. She then proceeded to the other questions.

> How is its hair different?
> How is its face different?
> How are its feet different?

In every instance, the teacher allowed the students time to offer discriminating answers. For example, when one student responded that the one animal was a goat, the teacher asked, "How is the goat's face different from the other animals'?" The student responded that it had horns. The teacher confirmed this response and followed it up by asking, "What are the horns used for"? She then returned to the initial question and another student responded that the goat's ears went out and didn't flop down. Other responses received included:

Its eyes are round and have a dot in the center.

The sheep's eyes just have dots.

The goat has a beard.

The goat's face is long and skinny.

You can see the goat's mouth in the picture.

At the completion of this exercise, the students were permitted to color the animal pictures to help refine eye-hand coordination. They also drew other animals that were different. This coloring activity further reinforced observation of detail and allowed them to reinforce the differences they previously observed and discussed.

While the students drew and colored, the teacher evaluated the lesson asking herself questions such as:

Were the students able to perceive and describe differences in the pictures of the animals?

Did I pursue the students' answers by asking more pertinent questions?

Did I allow the students time to give valid responses?

ACTIVITY FIVE A

Continuing with demonstrations that allow students to exercise their perceptual and descriptive skills with regard to difference/similarity discrimination, the teacher began this activity about differences in habitats.

Once more, she prepared herself for the lesson by making sure the overhead projector would be operational at the beginning of the class, and familiarized herself with the Homes Packet 3. This packet contained drawings of a traditional Hopi home, a traditional Navajo home, and a contemporary suburban home , as well as a composite drawing of all three homes.

The class began with the teacher entering into an informal conversation which led to more specific discussions about where the students lived, by using well-known local landmarks. (Sample questions: "How many of you live near the San Francisco Peaks, Navajo Mountain, Bristol Bay, White River, Standing Rock, etc.)?" The intent of these questions was to help students see that a point of reference helps describe the general location of their own homes.

Some of the children, however, had narrow environmental backgrounds, and were not aware of any landmarks they could identify. The teacher asked her students to step to the window and identify things they could see--the boys' dormitory, the playground, etc. She asked, "If you were on the swings in the playground and you wanted to get a drink, where would you go?" An enthusiastic little girl said, "Go around the building." "Why would you go around the building?" asked the teacher, and the other children replied in chorus, "Because that's where the drinking fountain is." The teacher used this response to show the children that they had used the location of the building as a landmark to explain where the water fountain was located.

She then pursued the general discussion in order to determine more precise locations of students' homes. Occasionally, she commented on an area that she knew well, or expressed a desire to some day visit a given area. The majority of children were involved in the disusѕion as the teacher directly questioned many of them: "Where do you live, Sam? Tell us what it's like there. Who else lives near Sam?"

The teacher soon observed that some students had a fairly accurate knowledge of where they lived, while others, who were reluctant to respond, most likely were not too certain of where they lived in relation to other places. She encouraged these students by asking them if some of the features described were familiar to them in their home.

The teacher was careful not to allow this discussion to carry on too long. She ended it before the students became tired of it and shifted the discussion away from a consideration of locale to a more specific discussion of what their individual homes looked like. The shift came naturally as the question "Where do you live?" simply became more specific and defined. The students described their homes, telling other class members what they looked like, what materials they were made of, what the shape was like, until the teacher introduced other comparative examples by way of the overhead projector and the Homes Packet. One by one she showed the Hopi home, the Navajo home and the contemporary home. During the showing of each drawing the teacher asked the students to describe the exterior characteristics of each home and helped them to point out the unique features of each.

Some questions raised by the teacher to help the students pick out unique features:

Is there a horse or sheep corral near it?
Are there trees nearby?
Are there fences around it?
Is there water nearby?
Are there mountains close or far away?
Is there a corn field near it?

After previewing these questions, the teacher felt that some should relate more directly to the child, so she changed the wording of the question to read as follows:

Are there any trees near your house?
Do you have a fence?
Do you live near water?
Does your family grow food?

After the three individual homes were viewed and described, the teacher showed the composite drawing of all three homes. This drawing she used to stimulate discussions regarding differences among homes. Some of the questions she raised to stimulate this discussion were:

How are these homes different?
Are they made of the same materials?
Are they shaped the same?
Are they in the same kind of country?

Since interest among such young students would soon begin to wane without again introducing their own "primary source" information, the teacher next introduced questions designed to more directly allow comparison with their own homes.

Who else lives near a cornfield?
Who else has a sheep or a horse corral?

How many of you have a home that looks round on the outside?

Why are corrals and other pens for animals important?

How do you build a corral or other animal pen?

Why are trees important?

Where do trees come from?

Such questions could only be answered by using information students already knew which reinforced the idea that things learned from experience were valuable in academic situations.

The teacher ended the discussion by talking about the functional aspects of some of the differences. For example: homes built for hot and dry climates, i.e., hogans, are not functional in the Amazon. In the Amazon, she explained, there is much rain and it is always very hot. The rain would wash the dirt from the roof and the inside of the hogan would be muddy and wet. The walls of the hogan would not let the breezes cool the people inside. Homes in the Amazon have no walls. They have four poles that hold up the roof. The roof is made of grasses and large leaves which are tied together to keep out the rain. In winter the weather on the reservation is cold and there is snow and wind. A home without walls would not keep the wind and cold and snow out of the home. Homes are different because they do different things.

This story, which demonstrated that the teacher was also a "primary source," concluded the class. The teacher, however, was not through; she evaluated the day's activities by asking herself various questions before going on to the next lesson, which would help her present, the lesson more productively.

Some of the questions which she asked herself included:

Were the students able to talk about the unique features in their homes?

Did students see the differences between the three homes?

ACTIVITY FIVE B

Since the students were now already familiar with the exteriors of homes and their relationship to their surroundings, it was now time to introduce new materials which concerned the interiors of homes.

The teacher began the class by reminding the students of their knowledge of exteriors. She then told them that knowing the outside of a home is rather like knowing the outside of a person: his age, his clothes, color of hair and general appearance. There were many things, she explained, that they could not know about the inside of a person simply from viewing the outside. She told them that it was the same with homes but that it was much easier to know the inside of a home than the inside of a person's mind. Besides, she explained, everyone had lived most of the time inside their homes and they were already familiar with what these interiors looked like. The teacher felt that students would better conceptualize what the interiors of homes were like if the class went on a walking field trip to several types of homes, such as a trailer home, a contemporary home, and an Indian home. The experience gained from this field trip provided students with information that the students used when responding to the teacher's questions.

She then asked the class, "Who would like to tell us what the inside of his home looks like?" As several students began to answer this inquiry, the teacher found that various questions arose which assisted the students to recall some specific details with regard to the interiors of their homes:

What size is your home?

How many rooms are there?

What size is each room?

What shape is each room?

Where do you store your clothing?

Where is the cooking done?

Where do guests stay when they come to visit?

Where do you sleep?

What do you like best about your home?

Are the walls inside your home the same as the walls on the outside?

Are there things hanging on the wall?

What are they?

What are they used for?

Why are they hung there?

Are there things like a sewing machine? Where is it kept?

Name some other things that are in your home.

Where are they kept or stored?

What keeps your home warm in the winter?

What do you burn in your stove or heater?

Where do you get the fuel?

Do you keep water in your home?

Does water run out of a pipe or do you store it in a barrel? A pail?

Answers to these questions provided sufficient details about the features of individual homes that the students were next able to draw simple floor plans of their individual homes. The teacher first instructed them in the concept of "floor plan." To demonstrate this simply, she explained that a floor plan was really a picture of what the floor looked like if one looked at it from a great height. She drew a rectangle on the blackboard which she told the class represented a room; then she drew a few chairs and desks, and told the students how these lines represented objects. After the students grasped this concept, they next drew floor plans of their homes. After the floor plans were drawn, they were cut out. Next the students were provided with clay out of which they molded shapes which represented various home furnishings (e.g., stove, sheepskin, suitcases, chair and tables). These shapes were then placed on the floor plan they had made of their home. The teacher also introduced the concept of scale: "If the classroom is this big how big should the table top be?"

As soon as most of the students had completed their interiors to their own satisfaction, they were asked to compare their interiors to the interiors of other homes represented in the class. The models which they had made of the inside of their homes encouraged such comparisons.

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ACTIVITY FIVE C

Since the past two days had been busy ones, the teacher determined that today she would involve the students in a coloring activity which would be both a relaxation for them and a reinforcement of all the varied materials covered in the two previous activities.

The only materials she used in this day's lesson were the Homes Packet 3 and the crayons which all the students were already provided with. She told the students to take out these materials and that today they could color the homes they had discussed. She told them to attempt to use the differences which they had noted on previous days in coloring their drawings. She also told them that to do this well, they should try to include as many details as they could distinguish or remember.

As the students began to color, the teacher circulated about the classroom asking questions at the students as to why they were proceeding in the manner in which they had chosen, to color a given home. In this way, they individually described the different characteristics of their drawings.

When the students were finished coloring, several drawings of the same house were hung before the class and discussed. All the drawings had been previously collected so that when the teacher selected certain drawings to display there was an anonymity about them. A student was free to identify his drawing and defend his manner of coloring, but he was not forced to do so. In this way the teacher could use drawings which illustrated rather poor understanding of differences without putting the less able student in the limelight.

The teacher felt at the end of the day that the class had satisfactorily summarized the materials of the past few lessons and was content to move on to new material the following day. Otherwise, she could have spent another class period on the same activity.

ACTIVITY SIX

Now that the teacher felt confident that the students could discriminate differences reasonably well, she decided to move on to a discussion and demonstration of the functional reasons for differences in homes. She wanted to discuss functional reasons for the location of homes in terms of work, food and water supplies.

Once again she arranged to have an overhead projector ready at the beginning of the class and prepared her lesson by reviewing Homes Packet 2 and 3.

She opened the class by saying: "Do you remember the other day we said that we would talk about why it is good that things are different?" Here she reminded the students of the story which she had told them about what it would be like to live in a house like theirs in the Amazon, and what it would be like if an Amazon home were built where they lived.

She then led the students into a discussion which would demonstrate the functional nature of differences. For example, she mentioned that when they had been discussing their own homes, one student had mentioned that he had a corral near his home and another had mentioned that he didn't have a corral but that he did have a big tree.

The teacher wanted to know why both would be useful under the proper circumstances. Some questions which she asked which fostered this thought were:

How is a corral useful?
How is a tree useful?
How are a corral and a tree different?
What are corrals used for?
What are trees used for?

Responses to these questions were pursued by the teacher when she asked students to tell her more about their answers.

After discussing certain specific functional differences, the teacher raised the more general question, "Why do we live where we live?" This question led to a discussion concerning why people select certain places to build a home. Some questions which the teacher asked regarding a student's home and its proximity to water and food supplies, as well as work activities

Where do you get water?
How do you store water?
What kind of food do you eat?
What kind of food do you like best to eat?
How do you get your food?
Where do you get your food?

How does your family earn money to buy things they need?

Do you live near a city or trading post? Why?

These questions drew on the information which the students had previously supplied when they drew plans of their homes. Furthermore, they started the students on the road to discrimination of value by function. Before this discussion was concluded the teacher introduced new materials by showing projections of the shadow or summer home and the drawings of a hogan, a Hopi home and a modern home (these students were already familiar with their differences from ACTIVITIES 5A, B, and C).

Questions which she asked with regard to these homes reflected the purpose for which the structures were built. For example:

Which home do you think is coolest in the summer?

Why doesn't the shadow home have walls?

Would the shadow home keep you warm in the winter? Why?

What is the difference between a hogan and a Hopi home?

What is the difference between the Hopi home and a modern home?

Why do people have a summer home?

Why do people live high on top of a mesa during the summer?

Why do people live low in the valley during the winter?

What is the difference between summer and winter homes?

Name some animals that build summer homes.

Why do these homes look alike?

How do these animals' winter homes differ from their summer homes?

At this point students were reasonably able to discriminate differences between homes and their surroundings from the standpoint of functional utility. They also had some conception of how to plan a home on a site which offers convenient strategic accessability to food, water and work activities.

The students drew two different kinds of summer homes to conclude the day's activities. The teacher evaluated the lesson by asking herself the following questions:

Were the students able to discern differences in homes?

Do students understand why the location of a home is important?

Did all students participate in the discussion of homes?

Was an understanding developed which would help students see the purpose for which a structure was built?

ACTIVITY SEVEN

Having reflected on the previous responses that the students had made demonstrating that they were able to describe the features of their home and the surrounding landscape, the teacher decided to use a role-play activity as a learning experience. Using the information gathered previously from the class members, she designed a plot, with the assistance of the class, and organized a sequence of events which led to a learning experience.

In an earlier lesson one of the students indicated that he had a corral near his home. The teacher reminded the class of this statement and suggested that they build a plot along these lines:

> Let us pretend that Steve has three older brothers, two sisters, a mother and a father in his immediate family. Steve's father and five uncles own a herd of horses which are allowed to graze on the open range during the winter. Each spring the horses are rounded up and herded into the corral near Steve's home. There the colts are branded. Later some of the horses are traded or sold. Each spring Steve's family and his uncles look forward to roundup time. They ride high up on the mesa and look for the horses. Steve's father says, "Round up the horses you find into a small

> herd. Drive the small herd of horses down the wash and into the canyon where we will all meet. Your brothers, uncles and I will each have a small herd of horses too. When we all meet in the canyon we will have one big herd of horses. Then we will drive the horses out of the canyon and into the corral at home.

At this point the teacher stopped and asked, "What do you think happened next?" Out of a number of responses the class worked out the following conclusion:

> Everything happened as Steve's father said it would. Steve found six horses and herded them down the wash. In the canyon he met his brothers, uncles, and his father. They had all found horses. They drove all of the horses out of the canyon. Steve's mother and sisters heard the horses galloping. They saw the dust. They opened the corral gate. Most of the horses ran into the corral but some did not want to go in. They ran around the corral. One horse tried to walk into Steve's house. Another horse started to eat some corn that Steve's sister was grinding. Still another horse started to drink water from the barrel that Steve and his family used for their drinking water. Everyone was running around yelling and trying

to get all of the horses in the corral where they belonged.

The teacher stopped the narrative and asked if the class would like to play-act this story they had helped to make. All agreed that it would be fun to act out the story and everyone began to organize the setting in which the story took place. The teacher encouraged the students to accept as much responsibility as possible for organizing the activity.

Since it was a rainy day and they could not use the playground for their play-acting, the students set the stage right in the classroom. They used their desks to plot the shape of the corral and the shape of the house and their relationship to each other. Then students took the roles of: Steve, Father, Mother, three brothers, two sisters, five uncles. The remainder of the students took the parts of the horses which were to be herded into the corral.

After the students had acted out their story, the teacher asked them some questions which pointed out that the world of make-believe and play-acting could also teach important things. She had them analyze their acting and their story. Some of the questions asked included:

Why didn't Steve's parents want horses in the house?

When she asked this question, the teacher felt the children's responses didn't explore the question sufficiently, so she restated the question:

Do horses live in your house? Why not?
Why didn't Steve's parents want the horses eating the corn or drinking the water?
How are places in which we keep animals different from our houses?
Was it a good idea to gallop the horses up to the corral and around Steve's house? Why?
What is the difference between a corral that we use for sheep and one that is used for horses?

The teacher felt this question was too lengthy and should be simplified. She broke it into two parts:

Is a sheep corral different from a horse corral?
Tell me how it is different?

The teacher evaluated the usefulness of this activity by asking herself the following questions:

Were all the students actively involved in each aspect?
Did most participate in organizing the activity?
Did I allow leadership roles to evolve within the groups?

Did I dominate the group by giving unnecessary directions?

Did the students answer the majority of questions in a significant manner?

Did I, and did the other students, make efforts to help shy students become involved?

ACTIVITY EIGHT

As the children were able to recognize differences and similarities more easily, they became ready for reasoning by analogy. The unit which showed the children differences and similarities between animal homes and people's homes was useful in aiding the development of analogous thinking.

In preparation for the lesson the teacher had previously ordered the film, "Animal Homes," from:

Bureau Wide Film Service
P. O. Box 66
Brigham City, Utah 84302

In addition to this film the teacher decided to use a second film entitled "Animal Neighbors." This she ordered from her school's film library service. She felt that since both films complemented the intent of the activity, they would add depth and reinforce the learning experience of her students. She set up and tested a 16 mm film projector in the classroom. She had previously read Activity Module 8 and previewed the film and its written summary.

The teacher asked review questions about the previous activity to introduce the material: "Do you remember after we got the horses in the corral, you were asked how animal homes, like a corral, are built differently from our homes? Today we're going to see a film which shows that animals live in different kinds of places and different kinds of homes. After we see this film we will talk about the differences between animals' homes and our homes. We will try to discover why animals build their homes where they do."

After the film, the teacher initiated a discussion which emphasized:

What kinds of things affect where both animals and men choose to build their homes.

Differences and functionality of homes.

The proximity of homes to food, water supplies, and protective cover.

The teacher then asked questions to further explore the students' comments:

Why do people build homes?

Why do animals build homes?

Why do animals build homes where they do?

Why were homes of different animals built in different places?

Why don't ants build nests in trees like hornets do?

Why do different animals that live in close proximity to each other build different kinds of homes? Example: muskrat/mink.

Name some special ways in which a squirrel's home is different from a badger's home.

Name some special ways in which a bird's nest is different from a goose's nest.

Name some ways in which your home is built differently from animal homes.

Name some ways that your home is different from your neighbor's home.

The answers to this last question, the teacher recorded on the black board under the appropriate student's name to serve both as an example of the type of information wanted and as a record from which to begin the next day's work. This question also helped develop the students' awareness of the unique characteristics of their homes and surroundings.

When the discussion ended, the teacher announced a game. "Now we're going to play a matching game. Take Animal Packet 5 from the pocket in your folder (she drew a number 5 on the board). I will hold up a picture of an animal's home (she was using Animal Homes Packet 4) and you are to find and hold up a picture of the animal that lives in that home." After the children had all mastered recognizing animal homes, the teacher said, "Now we will all take the crayons and paper I will give you, and draw a picture of two animal summer homes." The children spent the rest of the period drawing. Later, when the pictures were completed, the children displayed their drawings and talked about them.

When the day's activities concluded, the teacher evaluated the lesson by asking herself the following questions:

Was the idea dramatized that homes of both men and animals are constructed of different materials and have different designs and uses ?

Was it shown that such homes are constructed near food, water and protective cover?

Did each student make a verbal contribution to the discussion?

Were questions during the discussion pertinent to the objectives of the lesson?

Were analogies made between site location of animal homes and people's homes?

Were the functional reasons for differences included in the discussion?

ACTIVITY NINE

In order to have the student become more aware of the unique and general characteristics of his home and its surroundings, the teacher used this activity to reinforce preceding attempts to help students define differences more precisely.

She began the class by reminding them of the film they had seen the previous day about animal homes. She further reminded them of the discussion they had had about the differences between animal homes and their own homes. Then she told them, "Today we will talk about ways in which some of your homes are different." At this point she reviewed with them highlights of that discussion, and used her blackboard notes as a guide.

Next she told them that this day they would draw or paint a picture of their own homes in which they were to put all the things about their homes that made them different from their neighbors' homes. In order that they might do this, the teacher had ready sufficient materials: paint brushes, water colors and water color paper, drawing paper and color crayons, and drawing pencils.

The students chose their media and began to draw. Meanwhile, the teacher circulated about the room as they became involved in their work. She offered encouragement and also helped each child to recall features about his home with questions such as:

Is there a road near your home?

Does it have a dirt surface or a hard black surface?

Show me where it goes in the picture

She used this same line of questioning concerning materials used in constructing walls, roofs, and floors. She dramatized special characteristics of each house by holding up two drawings that demonstrated individual differences as well as by calling attention to such differences to the entire class.

As individual children completed their work and proceeded to hang their pictures, the teacher started a discussion by asking them to compare the ways their pictures were different from other pictures. As students became more and more skilled in discerning differences, contrasts were made more challenging by the teacher asking for discriminations between drawings that had only subtle differences; e.g., In two drawings each contained a representation of a house, a road, and a tree in its scenery. Only one drawing, however, pictured a few ears of corn hanging out to dry. In another pair, the difference was that one house was made of logs and dirt but in the other the house was made from shale stone and logs. At the end of the period, the drawings were kept for further use.

The teacher evaluated her efforts at the end of the session by asking herself the following:

Did students render sufficient detail in their pictures to individualize their drawings?

Did some students include more detail after I dramatized the differences of several pictures?

Did I converse with each student in an effort to obtain details of the home so that the student could include such features in his drawing?

ACTIVITY TEN

Having reviewed the unique features which characterized each student's drawings from the last activity, the teacher decided to use these drawings in class once again--this time as a vehicle to better oral expression among the students.

Since each student was to tell a story about his drawing, the teacher arranged for an opaque projector to enlarge the drawings so the entire class could see. Once more, she began the class by reminding the students of the previous day's activities. She reminded them that they had been asked to draw pictures of their homes incorporating into the drawings the things that made their homes different from other homes. Today she told them they were to tell the class about their drawings.

She told them that they could do it in any way that they wished and suggested that they might like to make up a story about their homes. Those students whom, the teacher had noted appeared least verbal, presented their stories first. In this way, other, more verbal students elaborated on the presentation thus enriching the contribution of the less able student.

Some of the questions which the teacher felt might help the students in presenting the stories of their homes included:

What are the walls made of, wood or rocks?

What is the roof made of, dirt or wood?

Does it have windows? If so, how many?

What shape is it? Is it round like a circle? Or square like a box?

Does it have one large room or does it have many rooms?

Does it have steps in front of it? If so, how many?

What do you like best about your home?

How do you help around your home?

What are some games you play around your home?

Is there a special place you like to play? Show us where it is in the picture?

What are some things that are around your home?

Is there a well?

Are there trees?

Does your family raise corn?

Do you have a summer home?

Does your family have a wagon or a truck?

What kind of animals are around your home?

Do you keep some of these animals in a corral?

The teacher encouraged group participation which contributed to the students' stories. This was accomplished with such statements as, "Who would like to ride to town in a pick-up truck like Sam does?"

At the conclusion of the class, after as many students as possible had told the story of their drawing, the teacher evaluated the day's accomplishments by asking herself these questions:

Were all students involved in the exercise?
Were all contributions received and recognized by the class?
Did students elaborate on the unique features of their homes?
Did all students verbally contribute to stories?

ACTIVITY ELEVEN

The teacher had set up a 16mm film projector to show the films, A Boy of the Navajos and African Girl, Malobi. These films were made available from:

Bureau Wide Film Service
P.O. Box 66
Brigham City, Utah 84302

(We have included mail orders and stamps for your convenience.)

It was the purpose of this exercise to compare Navajo and Ibo homes, family life, and general life style. The teacher introduced the film by saying, "Yesterday you told stories about your home. Today we are going to see two films. One is about a Navajo boy, his home and family life. The other tells about a girl who lives in Africa. She is a member of the Ibo tribe. In both films you will see their homes, the things that their families do and the work that the child must do. The first film we shall see will have sound with it, the second will not. When we show the second film, African Girl, Malobi, we will play a guessing game. We will not hear any sound or hear people talk. Sometimes I will stop the film and we shall talk about what we think is happening in the film."

This approach allowed the teacher to focus upon specific points and it allowed children to comment very soon after being exposed to a picture reading experience. The teacher stopped the film at five different points, (1 min. 15 sec., 1 min. 50 sec., 4 min. 35 sec., 6 min. 40 sec., and 7 min. 55 sec.) and each time asked the students to comment on what was going on with particular reference to heritage, clothing, climate, home and home construction, food, economy, and school. She had prepared the following questions in advance, after previewing the film, in case the discussion lagged or something important was missed:

Do these people live in a hot or cold place?
What kind of clothing do girls wear?
What kind of clothing do men and boys wear?
Do they dress differently from us?
How is their dress different from ours?
What shape homes do they have?
Does it rain a lot?
How do they build their homes?
What materials are used to build homes?
What kind of food do they eat?
How are their schools like ours?
What kind of work do girls do?
What kind of work do boys do?
What are the walls of the house made of?
What is the roof made of?
Do they have doors in their homes?

She closed the activity by saying to her students, "Try to remember as much as you can about both films. I will ask you some questions tomorrow concerning life among the Navajo and the Ibo." Questions the teacher asked herself after the close of class were:

> How accurate were the children's observations of what they saw in the films, based on their answers to my questions?
>
> What parts of the films seemed to interest them most?

ACTIVITY TWELVE

The objective of this activity was to make a cross-cultural comparison of the Ibo and Navajo home, family, economy, food, work, climate, and heritage. Students were asked to draw an Ibo home and to compare the African home with pictures of their own homes which they had previously created.

She introduced the activity by asking, "Do you remember the other day we saw two films? One film was about a Navajo boy and the other about an African girl. Today we will continue our discussion of these children who live in different lands. After our discussion you will draw from memory a picture of the house the African girl lived in. Then we will compare it to the drawing you made of your own home."

The teacher then briefly reviewed the films with the class. "If I recall correctly, the film about the Navajo started with him sitting on a hillside tending his sheep. Then it was time to herd his sheep home, and he put them in the corral. Then what happened? Who can remember what happened next?" Children were then allowed to recall as much of both films as possible.

After both films had been adequately recalled, the teacher led the group to a comparison of cross-cultural differences. She began by saying, "Thank you all for helping me remember the important parts of the films."

"Now, who can tell me:

How is the African home different from the Navajo home?

Was the work the Navajo boy did different from the work the African boy did? Tell me about it.

How is the Navajo school different from the African school?

How is the work that the African people do different from the work that the Navajo people do?

What were some things that the Navajo family sold at the trading post to earn money?

What were some things that the African family sold at the market place to earn money?

What kind of food did the African family eat?

What kind of food did the Navajo family eat?

Why were homes of both families built near places where they could grow food?

Why were houses of both families built near places where there was water?

Why were both homes built near a market place or trading post?

"I will now hand out drawing paper and crayons. You are to draw a picture of the African home from memory. After you finish the drawings you are to take out the drawing of your home. We will select several drawings and show them on the opaque projector. Then we will talk about the differences we see between each home." (A lead-off question might be: "How is your home different from the African home?")

Questions that the teacher asked herself after class were:

Did children contribute to the majority of recall information during the verbal review of films?

Were children encouraged to compare differences in heritage, economy, food, clothing, and climate?

Were dramatic cultural distinctions emphasized?

ACTIVITY THIRTEEN

The teacher began the Post-test activity by dividing the class into predetermined groups of 3-5 and by asking the students to remove the test from the left side pocket of their folders. She demonstrated its location and held the folder and booklet so all could see. She introduced the non-verbal portion of the Post-test by asking students to examine the cover of the test booklet. She was successful in capturing the students' interest and indicated that they would play a game similar to the one played a few weeks ago. She asked her students to open their books. She read the directions exactly as they occurred in Activity #3. She waited until all students had completed each item before she moved to the next task. She circulated about the class giving help to individuals by clarifying questions and offering encouragement.

At the completion of the test students were assigned to collect the Post-test booklets and place them on her desk. She informed the class that they had just completed one portion of the game, that the second part would be given to each of the groups in the class. She stated that as each group was being tested, the remainder of the class would be involved in a coloring activity.

The teacher then asked all students to remove the materials from Packet I (symbol-matching strips and card). She demonstrated and then asked them to color the diamond-shaped drawing on both matching strips and cards with a yellow crayon. She stated and demonstrated that rectangles should be colored red, squares blue, circles orange; and triangles green. When every child in a group would finish coloring, one student was to hold up his hand.

She began the verbal portion of the Post-test with one group. As other groups finished coloring they were directed to put all their cards into one pack and shuffle them. Then one of the children dealt six cards to each member of the group. Each of the cards was to be matched by color and shape on the strips in the same manner as indicated in Activity Two.

The teacher went to the students in the group she had chosen to begin the verbal portion of the Post-test. She had them arrange their chairs in a semi-circle so that each student was close to her and could hear and not be distracted. The teacher read the test questions which required verbal responses from students. As each gave answers, the teacher tallied, evaluated and recorded individual responses on her Evaluation Record Form. Each answer was recorded opposite the respondent's name and in the space provided. Each correct answer was tallied with a mark (/) and recorded to the right of the word "correct" located beneath the heading "Tallied Verbalizations." Tallies for correct answers and the number of responses were recorded in their appropriate spaces, as were totals for each.

At the completion of the test the group was asked to begin coloring and then proceed to the color-matching game. Then the teacher interrupted the group which appeared to be progressing most rapidly with the color-match and administered the Post-test. She systematically tested another group while others were occupied with the color matching activity, and so she progressed until the entire class was tested.

During her unstructured time she began work on the test by correcting the non-verbal portion first. She then subtracted the total number of correct responses from the total number of non-verbal items and computed a percentage score. The teacher then repeated the same procedure to obtain a verbal score. A determination was made as to where class strengths and weaknesses lay. Comparisons with the Pre-test results section on Differences (non-verbal and verbal) indicated the progress which had occurred. Students who would need continuing support in learning what subunit Homes was attempting to teach were identified, as well as children who had done exceptionally well.

EVALUATION PROCEDURE

Grouping Students

Before administering the Pre-test, the teacher must decide in what manner she will select students to be members of specific groups for testing. Some bases for grouping might be according to abilities, sex, and age. For example, a teacher might assign five or six students to each group. Each group should be represented by a balanced number of sexes, ages, and abilities. Such a group structure can provide an opportunity for less able students to receive help from a peer who understands what is expected. It also allows members of both sexes to learn how to relate and cooperate with each other.

Once the teacher decides that she knows her students well enough to determine how they should be grouped, she should list students' names on her Evaluation Record Form by groups (A, B, C; or 1, 2, 3). For example, see next page.

Procedure For Correcting Pre- and Post-Test Results

The directions for administering the two tests are included in both test booklets. Directions, as well as the test items, should be reviewed by teachers before giving tests.

Group A	Pre-test (Dif)	Post-test (Dif)
1. Henry Begay	Non-verbal 60 % Tallied Verbal ~~////~~ // (7) Correct /// (3)	Non-verbal 85 % Tallied Verbal ~~////~~ ~~////~~ (10) Correct ~~////~~ // (7)
	(Sim) Non-verbal 40 % Tallied Verbal ~~////~~ (5) Correct // (2)	(Sim) Non-verbal 70 % Tallied Verbal ~~////~~ //// (9) Correct ~~////~~ (5)
	(Simul. Dis.) Non-Verbal Etc. ( ) Tallied Verbal Etc. ( ) Correct Etc. ( )	(Simul. Dis.) Non-Verbal Etc. ( ) Tallied Verbal Etc. ( ) Correct Etc. ( )

2. Alice Nez	Etc.	Etc.
3. Ben Tsosie	Etc.	Etc.
4. Henry Redlegs	Etc.	Etc.
5. Roger Smith	Etc.	Etc.

1. The teacher can begin correcting the non-verbal portion of the test during free time.

2. She should then subtract the total number of correct responses from the total number of correct non-verbal items.

3. The percentage of correct items is computed.

4. The procedure for the verbal portion is separate from the non-verbal. Whereas the non-verbal is given to the entire class at the same time, the verbal is given to one group of not more than six students at a time. The other students are given assignments so that the teacher may devote her complete attention to the task. Evaluation is made when the student responds to a question read by the teacher.

The teacher has her Evaluation Record Form with her to tally each verbal response as it occurs. She also records if in the same manner the response was correct.

5. The scores of both tests should be recorded by category adjacent to the student's name.

6. After administering the Pre-test, the teacher made a class comparison of non-verbal with verbal scores to determine where individual and class strengths and weaknesses are.

7. Comparison of non-verbal and verbal sections of Pre- and Post-tests indicate the extent of progress. Students who need continuing support in learning what this sub-unit is attempting to teach will be identified, as well as children who have done exceptionally well.

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PAGE ____

FIELD TEST MATRIX DATA

UNIT/S BEING TESTED PEOPLE, PLACES AND THINGS : HOMES

DATES OF TESTING	SCHOOLS (B) Bureau (P) Public (M) Mission	TEACHERS and subjects taught	GRADE	SECTIONS	GROUPING	STUDENTS					
						MALE	FEMALE	NON-INDIAN	INDIAN	TRIBE	TOTAL
OCT.6 to NOV.24	Tuba City Public School Arizona (P)	Ila Feibus Helen Thomas	1		slow	29	19	0	48	Navajo	48
OCT.6 to FEB.15	Tuba City Boarding School, Arizona (B)	Daisy Roberts	1		mixed	15	14	0	29	Navajo	29
OCT.28 to DEC.5	Warm Springs Public School, Oregon (P)	Beverly Horttor	1		mixed	10	5	0	15	Yakima Wasco	15
NOV.14 to JAN.16	Eagle Butte Elementary School, S.D. (B & P)	Justine Sutphen	1		low avg.	11	7	0	18	Sioux	18
		Mardell Claymore	1		bright	14	4	9	21	Sioux	30
		Mary Maloney	1		average	13	4	3	24	Sioux	27
		Frances Longwood	1		slow	14	7	3	18	Sioux	21
NOV.18 to JAN.20	Fort Yates Elementary School, N.D. (B)	Karen Swisher	1		mixed	7	10	1	16	Sioux	17
		Carolyn Rettinger	1		mixed	12	9	4	17	Sioux	21
SUB-TOTALS											
TOTALS	5	10	1			125	101	20	206		226

Interim Production Notes--Portfolio and Contents

Changes were made in the portfolio and booklets during field-testing in Tuba City and in Alaska and the Dakotas. The zipper binding had been found to be weak, so during the second round of production, zippers were glued as well as taped to the portfolio.

The booklets were made more specific for the northern lands. In Animals We Know (packet booklet #2), a seal was added to the contents and also to the cover page. Homes (packet booklet #3) originally contained a hogan, a pueblo, and a contemporary home--homes relevant only to southwestern Indians. In order for the booklet to have meaning in the north, a shack-type house typical of the Northwest and Alaska, a transitional house typical of the plains, and a log cabin and cache house typical of the Northwest and Athabascans were included, as was a summary picture of all four homes.

Summer Homes (packet booklet #4) was similarly enlarged. The booklet field-tested in Tuba City, Arizona, compared a Navajo summer home with a hogan, a contemporary home, and pueblo. The lean-to, an Alaskan summer home, a tent, and a plains summer home were included before field-testing in the north. Students were then instructed to draw four summer homes rather than two.

Future Production Notes--Portfolio and Contents

A unanimous recommendation from field-test teachers is that the cardboard portfolios be made more durable. In the future when they will be mass produced, they will be made of plastic and professionally assembled by jobbers. Extra strength is needed in the binding around the zippers where most stress has occurred. The cutout drawings to be pasted on the portfolio will be redrawn more realistically, as requested by tribal people.

Another suggestion resulting from field-test experience is to include a labeling space on the portfolio and on the covers of packet booklets for the child's name. The cover of each booklet will also include the number of the pocket in which it belongs. These numbers will aid children in locating and replacing booklets and will also teach them numbers.

Animals (packet booklet #5) will be expanded to include a picture of a snake and a skunk. Animal Homes (packet booklet #6) will include the homes of the snake and skunk. All animals in Animals We Know (packet booklet #2) and Animals (packet booklet #5) will be labeled by name to aid the teacher in identifying them and to expose the children to word symbols for animals they study.

Portfolio Revisions

Field-test reports consistently pointed out the fact that pre- and post-tests were too wordy and ambiguous. The following revisions were made:

In the "Differences" section, question number 2 has been changed from "What are two things that you do that other children in other lands do differently?" The new version:

1. Name two things that you do.
2. Name two things that other children like to do.
3. Name two things that you do which are different.

In "Similarities," question number 2 was changed to read:

1. What are two things that you do at home?
2. Name two things that children in other lands do at home.

In "Similarities and Differences," question number 2 was changed to read:

1. How is a fork like a spoon?
2. How is a fork different from a spoon?
3. How is home like school?
4. How is home different from school?
5. How is an Eskimo like an Indian?
6. How is an Eskimo different from an Indian?

The questions on ball and plum, mountain and valley, and lakes and streams were omitted because the test was found to be too long.

Post-test Revisions

The post-test which originally accompanied the field-test materials has been discarded and replaced by the pre-test. The pre-test will be administered in its entirety during Activity Module #3. The section dealing with differences will be administered during Activity Module #13 as a post-test. At the completion of the sub-unit "Homes and Schools," the sections which test similarities, and similarities and differences, will be re-administered.

FIELD-TEST REPORTS

The procedure used to orient teachers testing the primary unit was to mail all materials a few days prior to the arrival of the NECESSITIES staff. This gave teachers an opportunity to examine the portfolio and read the narratives. A project staff member met with each teacher to review the intent of materials, answer questions, and if desired, to demonstrate the teaching of an activity module to students.

Following the sample demonstration, teachers were encouraged to begin instruction of the unit while staff members were personally available to help with problems which might arise. Before departing from the test-site,staff members asked the teachers to submit weekly reports which would do the following:

(1) serve as a running history relating the effectiveness of materials.

(2) document modifications incorporated by teachers

(3) indicate unforeseen problems which were encountered

(4) supply the project with samples of supplementary materials developed by teachers

(5) be used as a primary source for revising materials

It will be noted that all teachers from Eagle Butte and Fort Yates had not had sufficient time, as of this writing, to begin submitting their reports. The following represents all weekly reports received from teachers, up to and including December 2, 1969. Included with weekly reports are reports from staff members which described their involvement and observations while working in the field. Also included is one field-test evaluation. This was given by the teachers of the Tuba City Public School who had completed their presentation of the unit.

Field-Test Report--Tuba City Public School, Tuba City, Arizona

Teachers: Helen Thomas, Ila Feibus, Tom Cracas

Students: Primary

Date: October 6, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Staff Report)

Activity Module #1

Exploring the packet folder, coloring, cutting and pasting drawings on cover.

Time Required to Perform Activity

1 hour and 15 minutes

Classroom Situation

Team teaching--2 teachers and one teacher's aide. The classrooms were grouped homogeneously for slower students.

Changes

(1) Divide up the exploring and coloring and pasting activities so that they occur over a two-day period.

(2) Allow an additional day for discussion

(3) Specify in instructions that teachers are to "demonstrate manipulative activities and not assist by doing activity for the child."

Responses by Students

Active and interested. During activity, overtones of competition were evidence by three boys. A total of 7 students--5 boys and 2 girls--composed the group while the author demonstrated Activity Module #1.

Control of Student Behavior

The teacher noticed that one of the students was deliberately being careless by scribbling and coloring outside of the lines. She realized that the student was manipulating to gain the teacher's attention. If the teacher had rewarded the child by attempting to correct his deliberate carelessness, the child would have been controlling the teacher's behavior, which in turn would have reinforced the student's poor application of ability. Instead, the teacher focused the group's attention on a student who was doing quality work and reinforced his efforts by praising specific details she wanted other students to model. The teacher's efforts were successful: the student who attempted to manipulate the teacher's behavior began to produce neat work; at that point the teacher praised him for his work and effort, thus encouraging appropriate application of ability and positive means of seeking attention.

Field-Test Report--Tuba City Boarding School, Tuba City, Arizona

Teacher: Daisy Roberts

Students: First grade

Date: October 7, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Staff Report)

Activity Module #1

Exploring packet folder. This is a continuation of the previous day's work of exploring contents of the unit. Students were involved in coloring, cutting and pasting drawings on packet folder.

Classroom Situation

One teacher--self contained class--heterogeneous grouping

Change

The conclusion arrived at yesterday when working with the public school (first grade slow group) reinforces the realization that the exploration of the packet needed to be expanded into a two-day activity. There was too much material to be covered in one day's activity.

Response of Students

The teacher was working with fifteen students in a reading group. Thirteen students were left to themselves to work on coloring, cutting and pasting drawings on folders.

All were attentive and interested in the task; none left their seats or became involved in inappropriate activities. Detail in coloring was exceptionally good with this group. The same was true of cutouts. (It must be mentioned that the teacher does exceptionally well at her job.) All children in the second group , as well as the first group, responded to the exploring exercise.

Pre-test instructions should state that no specific answers are required from verbal part of pre-test, and that general responses are to be expected from a general question. For example: "What are two things that you do that children in other lands do differently?" Acceptable responses may be, "They play different games and eat different foods," or "They live in different homes and wear different clothing," etc.

Mrs. Roberts commented that the morning of the second day the children were ready to go to work because they knew they would be continuing the activity started Monday. They usually are more difficult to get ready to begin work. She also stated that the children identified strongly with the hogan. The other pictures were discussed and the students displayed interest in the campfire and dog. She stated that they were highly motivated by the activity, that they usually scribbled out colors in a few seconds and would say, "I'm finished." The students spent a longer time (Monday, 50 minutes) and put in fine coloring detail, drew and cut out pictures.

Students who completed assignments first began to re-explore the "Animals We Know" packet and were looking at and moving animal pictures. Still others voluntarily became involved in lacing and other manipulating activities.

Time Required to Perform Activity

1 hour and 35 minutes. At 11 o'clock the entire class became involved in completing activity #1 coloring, cutting, pasting and exploring.

Note

Some children were softly singing Navajo songs when coloring and cutting out. The entire activity appeared pleasant, relaxing, and provided some limited learning of the entire Indian culture, finger dexterity exercises, and eye-hand coordination.

I was very pleased.

Field-Test Report--Tuba City Boarding School, Tuba City, Arizona

Teacher: Daisy Roberts

Students: First Grade

Date: October 8, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Staff Report)

Activity Module #2

Non-verbal card matching game.

Time Required to Perform Activity

1 hour and 15 minutes

Classroom Situation

Heterogeneous. Self-contained class with one teacher.

Students continued to manipulate snaps, buttons and strings. However, as the teacher chose three students as demonstrators the class began to pay attention. As the demonstrators began to work, the attention of the rest of the class wandered. The teacher then silently gestured for students to sit still. She proceeded to work with the demonstration students by collecting their cards, shuffling them and dealing them. The children who were demonstrators caught on to the activity at once. The children who were at their seats did not focus their attention. At approximately twenty minutes into the activity, half of the class became attentive to what the demonstration students were doing. Children did have trouble pushing the thumbtacks into the tackboard. Some of the observing students began to talk to neighbors by the time the third student gave his demonstration. A possible solution to this problem of inattentiveness would be to have students gather their chairs around the tackboard, to be closer to the activity. Verbal introduction before beginning the non-verbal portion may also be helpful. Students at their desks were not attentive thirty minutes into the demonstration. It was evident that the portion of instruction which emphasizes that the teacher gather all students in a circle around the tackboards needs to be underlined or stressed more than it was. Without doubt, verbal directions would be more efficient and appropriate than silent demonstration for this group. The skill demonstrated by Mrs. Roberts in working the exercise was outshone only by her patience and hard work. The exercise was successfully done by children, but the time spent by the teacher in silent demonstration was inefficient.

Field-Test Report--Tuba City Public School, Tuba City, Arizona

Teachers: Ila Feibus, Helen Thomas, teacher aide

Students: Primary

Date: October 9, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Staff Report)

Time Required to Perform Activity

26 minutes per group.

Note

Packets are not holding up at binding side. Folders should be stitched for reinforcement. One group was administered verbal direction to matching card game. One was given non-verbal instructions to compare results.

Non-verbal--Mrs. Thomas

Teacher used detailed gestures to convey directions very well. It was evident that the teacher read and was carrying out directions of the narrative.

Non-verbal demonstration time, thirteen minutes. Thirteen minutes was also required to have five students in a group complete task. A total of twenty-six minutes was needed for entire task for a total of eight students in a group.

Verbal demonstration given by same teacher but with a different group of students. A total of twelve minutes was required for entire task with the second group.

It was still evident that children were very much interested in the packets and enjoying manipulation of fasteners and examining the contents.

After having both teachers of the team try silent as well as verbal approaches, the consensus was that they preferred the silent approach. The children's performance was much better and they were more attentive to what was going on. Performing silently took more time, but was more effective. Responses from teachers were positive. They stated they saw value to what was being done.

Change

Include instructions in narratives to have teachers of self-contained units make presentation only to small groups rather than the entire class.

Field-Test Report--Tuba City Boarding School, Tuba City, Arizona

Teacher: Daisy Roberts

Students: First Grade

Date: October 9, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Staff Report)

Activity Module #3

Time Required to Perform Activity

Non-verbal - 20 minutes

Verbal - 25 minutes

Pre-test: Teacher did not preview materials. The need for this should be emphasized in Narrative and Instructions and must be included in Pre-test materials themselves.

At the completion of the non-verbal portion of the Pre-test, books were collected and put on the teacher's desk. Packet folders were handed out and children were directed to remove packet #2. Directions for use of packets might need to be printed on the inside of the cover page. It was evident that the teacher had not read the Narrative in detail; for example, directions for colors to be used were not limited to lighter colors as suggested in the Narrative. If dark colors are used they may cover details which need to be used later for discriminating differences.

Five children were selected to sit in a group and were given the verbal portion of the Pre-test. Responses by students were not recorded.

Because of the time factor, the author suggests that the teacher limit the similarity-differences questions to include only the spoon and fork, home and school, and Indian and Eskimo.

Summary of revisions resulting from field-testing in Tuba City presented to principals at both schools:

(1) That activity module #1 be expanded to a minimum of three days: one day for exploring the kit, another day for coloring, cutting and pasting, and drawing on cover, a third day for discussing the work completed.

(2) That the binder of the packet folder be reinforced to withstand harder use.

(3) That the card sorting and matching of geometric forms remain non-verbal, but the administration of this activity be restricted to small groups no larger than ten. It will not be administered to the entire class at once.

(4) That specific directions related to individual packets be printed on the inside cover page of each packet for the teacher's convenience and immediate reference.

(5) That a statement be included in the Pre-test narrative that on the Pre-test no specific answers would be required of children. That acceptable answers may be general and related to the child's experience.

(6) That relationships between clothing and packet be expanded upon in directions.

(7) That feedback be obtained from teachers. More specific suggestions as to how the teacher can suggest relationships between aspects of the packets and other articles--portfolio, suitcase, zipper (clothing), laces (shoes), buttons (shirts).

Field-Test Report: Tuba City Boarding School, Tuba City Arizona

Teacher: Daisy Roberts

Students: First Grade

Date: October 13-17, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Teacher Report)

The verbal portion of the Pre-test was completed Friday morning, October 10th. The pupils had the most difficulty with "Differences" and "Similarities and Differences." I think it would help if the wording was changed.

Example: Name two things that you do at home.
Do you think other children do them differently?
How do you think they do them?

I think the Similarities and Differences portion is too long for primary children learning a second language. I used three items with the last group and they didn't get as tired as the other groups.

The pupils could perceive the differences in the pictures of the animals and describe the differences in one-word answers. I think the transparencies served the major role in helping the pupils exercise their perceptual skills.

Monday

We began with the Sub-Unit Homes. I used the following landmarks: Coalmine Mesa, Copper Mine and Grand Canyon. Pupils were able to tell if they lived near any of these landmarks. They were able to tell where they lived. I asked them to tell if there were such things as trees, mountains, mesas, large rocks, grass, tumbleweeds, corrals, cornfields or sand around their homes. This helped them describe the area around their homes. They were able to name some of the materials used in building their homes. They described the exterior of their homes.

Tuesday

The three homes were shown to the pupils. They encountered some difficulty in naming the differences in the three homes. I pointed out to the pupils that each home had something that the others didn't have. They were then able to point out the unique features of each home. They didn't have any trouble finding similarities.

Pupils were able to answer some of the questions concerning the homes. Supplementary work on homes was provided. Pupils colored dittos of homes.

Wednesday

I began with the primary source information, page 31.

Pupils had difficulty answering some of the questions. I used supplementary material to show where a tree came from. We drew a corral on the board. Some of the pupils dictated the instructions for building a corral. The pupils will build a corral when they construct their homes.

We went out and looked at trees. We felt the trunk of a tree.

Thursday

The functional aspects of the differences were discussed. I showed the pupils where the Amazon was on the globe. I asked pupils to tell me how the sun made them feel when they were out for recess. Most of them said, "Dry." I used the wet cloth experiment to get the concept of hot and dry climates across. I used a sprinkler of water and a pile of dirt to show how the rain could wash the dirt away from a hogan if it was used in the Amazon.

I used pictures to show what people would need for a home in the Amazon. I think the pupils would get more out of this lesson if pictures were used.

Friday

A guided discussion on the interiors of the pupils' homes. Pupils described the interiors of their homes and made floor plans. I used the questions on pages 35 and 37. We did not have clay to make the various home furnishings. We developed an experience story on the homes that we had discussed. We displayed the homes on the bulletin board and labeled them. The homes came from their supplementary work.

I have made arrangements for a field trip to South Tuba to see a Hopi home and a contemporary home.

Field-Test Report: Tuba City Coarding School, Tuba City, Arizona

Teacher: Daisy Roberts

Students: First Grade

Date: October 20-24, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Teacher Report)

Monday

I reviewed the similarities and differences of the three homes: the Hopi home, the Navajo home, and the contemporary home.

The pupils experienced some difficulty in pointing out similarities in the homes.

I had a boy and girl come to the front of the room. Then the pupils were asked to name the physical features that both students had and the same things that both could do. Pupils named such things as eyes, ears, nose, hair, etc. They named sleep, eat, drink, work, and other things that they could do.

After this, pupils were able to point out the similarities in the homes.

Pupils colored the homes in the Homes booklet.

Tuesday

We completed the coloring of three homes and put them on the bulletin board. The children displayed the homes under the correct headings which had been placed on the bulletin board. They enjoyed doing this.

Wednesday

We went out into the community and looked at some of the contemporary homes. Pupils observed and identified the materials that the homes were made of. They pointed out the similarities in the homes.

The Homes Packet was reviewed. The pupils named the things near their homes. They were asked about the usefulness and the differences of each. The pupils gave good comments. For example: "We have a corral. It keeps the sheep and goats from getting out." "We have lots of rocks. We use them around the outside of the house. We make walks with them."

Pupils had no idea as to why they lived where they did. They were able to answer the questions concerning how they obtained their food and water.

Questions regarding the purpose for which the summer home was built were not completed. Pupils were able to discuss and answer those that were covered.

Thursday

The pupils went on a field trip to Moencopi and Old Oraibi to see the Hopi homes. Pupils observed that the homes were made of rocks and clay. They also observed that the homes were built close together on a mesa.

Friday

Pupils discussed the field trip to Moencopi and Old Oraibi. An experience story was developed and written. The pupils read the story with the teacher's help. Pupils drew pictures of the homes that they had seen in Moencopi and Old Oraibi, and displayed them outside the classroom in the hall.

Then pupils drew pictures of the homes that they had seen on the two field trips in their Homes booklet. They drew a contemporary home, a Hopi home, and a Navajo home.

Field-Test Report: Tuba City Boarding School, Tuba City, Arizona

Teacher: Daisy Roberts

Students: First Grade

Date: October 27-31, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Teacher Report)

Monday

Pupils drew summer homes in their Summer Homes booklet. Most of the pupils drew only one kind of summer home because they knew only one kind. Pupils were shown a picture of an Eskimo summer home. I explained to the pupils that other people in different lands as well as in the United States have summer homes. These summer homes may be made differently from the way they make their summer homes. Other summer homes will have to be introduced to the pupils. I am in the process of getting some dittos of summer homes.

Pupils were taken to the playground to make homes in the sand. Some pupils made hogans and summer homes. Others made two-room houses with sticks. They included trees, rocks, mountains and corrals in their surroundings. They used small twigs for the trees and piles of sand with small rocks for the mountains. They made the corrals by using sticks.

The pupils thoroughly enjoyed this activity. It was meaningful and creative.

Tuesday

We collected sand, sticks, and rocks for our sand box. I prepared powder clay to make hogans. The pupils want to make hogans and corrals. Some want to make a Hopi home.

The pupils had a Halloween party, so the period was cut short.

Wednesday

We discussed shearing sheep. I asked the pupils to tell how they sheared their sheep. One of the pupils, Amos, gave more information than the other pupils. He told how his mother, father and big brother herded all the sheep into a big corral. Then they prepared to shear the sheep. They got the shears to cut the wool off and sacks to put the wool in. They took the sheep out of the corral one at a time and cut all of the wool off. They put the wool into the sacks and put the sacks on their pick-up truck. Then they carried some of it to the Trading Post to sell. They washed some of the wool and kept it for making rugs.

I wrote the story on a chart. We have not acted it out.

A special assembly cut the afternoon short.

We did not have school Thursday and Friday.

For next week we will need to do more work on summer homes. I will use the sand-box activity and the making of the homes as an extended interest in other subject areas. We will need to act out the story, Shearing The Sheep. We will not have class Thursday.

Field-Test Report: Tuba City Boarding School, Tuba City, Arizona

Teacher: Daisy Roberts

Students: First Grade

Date: November 3-7, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Teacher Report)

Monday

I presented the following summer homes to the pupils:

Summer Home of the Sauks and Foxes

Summer Home of the Indians who lived in the forest.

Tuesday

We did not have class, but pupils worked on their hogans.

Wednesday

We acted out the story, Shearing the Sheep. The pupils used chairs to make their corral. We used large paper bags in which to place the wool and large scissors for shears. Some of the pupils acted as sheep. We placed pieces of material on them to represent sheep. Four pupils acted as the family. A girl was the mother, a boy was the father, another boy was the big brother. Amos was not here, so a boy acted as Amos.

Amos and his family herded the sheep into the corral. They took out one sheep at a time and cut off the wool. Amos put all of the wool in the sacks. After they had finished, they put the sacks on the pick-up truck, which was represented by two large chairs and a box. They carried the sacks of wool to the Trading Post, which was the store in our classroom.

The pupils had fun acting out this story.

Thursday

The pupils answered questions about the story that they developed.

Pupils saw the film, "Animal Homes." We discussed the different places where animals live and the different kinds of homes that they live in.

Friday

We discussed the film about animal homes for the benefit of those who had forgotten what the film was about.

Pupils were able to answer the following questions:

1. Q. Why do people and animals build homes?
   A. They build their homes for protection from the

weather and other animals.

2. Q. Why do animals build homes where they do?

   A. So they can get food and water.

3. Q. Why were homes of different animals built in different places?

   A. Some animals fly and they want their homes off the ground. Some animals crawl and they want their homes under the ground.

4. Q. Why don't ants build nests in trees like hornets do?

   A. Ants don't have wings like hornets.

5. Q. Name some special ways in which a bird's nest is different from a goose's nest.

   A. A bird builds its nest in a tree and a goose builds its nest on the ground.

6. Q. Name some ways in which your home is built differently from animal homes.

   A. (1) My home is built on top of the ground.

   (2) My home has windows.

   (3) My home has a chimney.

7. Q. Name some ways that your home is different from your neighbor's home.

   A. My home is made of bricks. It is white, and it has three rooms. My neighbor's home is made of wood.

It is blue and has four rooms.

Pupils were not able to answer the other questions on page sixty-three.

I read the story, The Wonderful House, by Margaret Wise Brown.

I I used the following books:

1. Where Animals Live by Terry Shannon.
2. Where Do you Live? by Eva Knox Evans.
3. The True Book of Animal Homes by Illa Podendorf.

Enclosed you will find the following:

1. A copy of the story developed by the pupils, Shearing the Sheep.
2. A copy of the questions used after the story.
3. Copies of dittos on summer homes.

Shearing The Sheep

In the summer, Amos and his family herd all of their sheep into a big corral. His mother, father, and big brother prepare to shear the sheep.

They get cloth sacks and shears that look like big scissors. Then they begin to take the sheep out of the corral one at a time.

They hold the sheep down on the ground and cut all the wool off.

Amos collects all the wool and puts it into the sacks. When the family has finished shearing the sheep and all the wool is in the sacks, they put some of the sacks on the pick-up truck and carry them to the Trading Post to sell. They keep some of the wool for making rugs and other things.

Questions used after the story, Shearing the Sheep.

1. When did Amos and his family herd the sheep into the big corral?
2. Who herded the sheep into the corral?
3. How is the corral different from our homes?
4. What did they use to cut the wool off the sheep?
5. What did they use to put the wool in?
6. Where did they take some of the wool?
7. How did they take it to the Trading Post?
8. What did they do with some of the wool?

Field-Test Report--Tuba City Boarding School, Tuba City, Arizona

Teacher: Daisy Roberts

Student: First Grade

Date: January 5 - 9, 1970

Project NECESSITIES staff contact: Tom Cracas

(Teacher Report)

Monday

Animal homes for the following animals were reviewed:

mouse
goose
wasp
mink
squirrel
muskrat
skunk
beaver
ants
woodchuck
bird
raccoon

I used the *Encyclopedia Britannica Picture Story Books*. These books offered excellent pictures and information concerning the homes of animals. Other animal pictures in color were used to help pupils get a true identity of the animals.

We discussed where animals make their homes. Pupils were able to name animals that make their homes near the water, in burrows, in trees, on top of the ground, in the water, and in hollow logs.

Pupils named a few of the animals that make homes near the children's homes. They described the animal homes.

Tuesday

Each pupil decided to make a painting of one animal and his home. Pupils painted animal names on the paintings. The paintings were discussed and dramatized.

Wednesday

Pictures of homes for people were shown to pupils. Some of the homes were built near the water.

The following questions were asked:

1. What kind of materials were used to build this home?
2. Why was it built near the water?
3. What is the color and shape of the home?
4. Why do we live in a home?
5. How does it protect us?
6. Do animals build their homes like people?
7. Does your family build their home near water and food?

Pupils had difficulty in answering question four. Therefore, their thinking was stimulated with the following question: "Why do we wear clothing?" They answered the question. This was used as an example to explain the fourth problem.

Pupils could not name two summer homes for animals. However, we were able to find two summer homes for animals in the Encyclopedia Britannica Picture Story Books. The squirrel and the Canadian goose have summer homes.

Thursday

Pupils made paintings and drawings of their homes. They included the unique characteristics in their drawings. The drawings were compared and discussed.

Pupils viewed two films, "Navajo Canyon Country" and "Pueblo Homes." They were concerned with homes.

Friday

Pupils developed short stories about their homes. Each pupil made up a story describing his home and told it orally before the class. The teacher wrote each story in a notebook.

As opaque projector was not used. We did not have one available.

Field-Test Report: Tuba City Public School, Tuba City, Arizona

Teachers: Helen Thomas, Ila Feibus

Students: Primary

Date: October 24, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Teacher Report)

A most successful week of "People, Places and Things"!

Monday--a field trip to my home and Ila's. Mine is a trailer, Ila's is an apartment. Exteriors were noted, felt and discussed. Interiors were romped through with discussion of use of various rooms, furniture, etc. (A few children at a time so all could really look).

Tuesday--discussed concepts related to interior of homes. Drew floor plans of hogans and houses. Then asked questions about their own homes--facilities, furniture, etc.

Wednesday--field trip, by bus, around Tuba. Saw hogans, houses of various types, and the Hopi village at Moencopi. "Homes" packet booklets were colored during Art activity.

Thursday--Activity 6. Discussion of function and usefulness of types of homes (pp. 45-49). Showed film "Homes Around the World." Used the stop-frame for explanation and discussion, in Navajo and English.

Friday--"summer homes" (pp. 49-51). Discussion of material while in small groups. Afternoon hours were spent outside digging in the sand. The children built hogans, houses, corrals, made furniture and gardens and planted "trees." Several children worked on a large castle, with tunnels and towers! (Had tons of rain Monday and Tuesday and the sand was nice and damp--hope the moms don't mind the muddy knees!)

The materials are providing so much activity for the children (and us) and all of it enjoyable. We'll be ready for the film on animal homes on Tuesday or Wednesday--preferably Tuesday.

Our only criticisms are the usual--too advanced in spots, so we're compensating and teaching where possible. We're making notes in our books as we go along, so you'll know just how we're changing sentences or leaving them out.

I talked to Daisy Roberts and she is encountering many of the same problems that we are. She seems also to be doing extended activities for comprehension.

Field-Test Report: Tuba City Public School, Tuba City, Arizona

Teacher: Helen Thomas

Students: Primary

Date: November 9, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Teacher Report)

Progress in the program is as follows:

Oct. 27--Built background for story by asking who owned sheep, cows, horses. Then we told the story to each small group, using straws for the corral, dots for horses and fingers for people and their actions. This was necessary because the children really have no concept of "finish the story."

Oct. 28--Took the children outside, 1/3 of the room at a time, and acted out the story. The children volunteered to be characters or horses. They occasionally became confused as to who was what, but they enjoyed the activity.

Oct. 29--Questions in guide, pp. 57-58, were discussed. Many had to be re-phrased and some were just not understood.

Oct. 30--No S.S.--Halloween party.

Oct. 31--No School--Teachers' Convention.

Nov. 3 --Showed film "Animal Neighbors" which I have outlined in my notebook. It was shown twice. During the second showing we used the stop-frame to point out and discuss the various animals and their homes.

Nov. 4 --Showed film "Animals Growing Up" (didn't want to go into the packets until your film had been shown).

Nov. 5 --Field trip--we walked from the school to the reservoir area to look for animal homes. We found bird-nests, anthills, and many holes of various sizes that might belong to rabbits, mice and snakes. Some of the children said that they saw a snake although we teachers didn't see it.

Nov. 6 --Went into packets and discussed the various animals in the booklets. Most of them are unfamiliar to the children by sight and name. They recognized the mouse, fox and bird.

I would suggest more familiar animals, such as beaver; squirrel instead of mink; bee instead of wasp.

Nov. 7 --Film arrived! Showed "Animal Homes" and discussed the fact that many of these animals were in their booklets.

If things go well, we should be able to finish the unit on animal homes next week (Nov. 10-15). Do you suppose we could get the other film by Friday? We can probably use it by then.

Sorry I didn't get last week's report to you on time--things got a little wild, what with Halloween, Teachers' convention and Open House at all three schools. Hopefully they won't be late anymore!

Field-Test Report--Tuba City Public School, Tuba City, Arizona

Teacher: Helen Thomas

Students: Primary

Date: November 10-21, 1969

Project NECESSITIES Staff contact: Tom Cracas

(Teacher Report)

Here's a run-down of our activities for the past two weeks.

Monday

Teacher's guide pp 61-63. Elicited answers to questions. They required a good bit of re-wording and recalling films, discussion, etc. (notes in T.G.)

Tuesday

No School

Wednesday

Attempted drawings--not too successful.

Thursday

Reviewed questions on homes--discussed drawings of animal summer homes in an attempt to clarify. What about a cartooned film-strip with simple lines?

Friday

Prepared backgrounds for pictures of homes. Utilized art period and arithmetic concepts of shapes (circles, squares and rectangles to make a border design).

Monday

Children drew pictures of their homes during art period. Our Navajo aide, Mrs. Adson, stressed that the pictures should look as much like their homes as possible, in shape, color, surrounding areas.

Tuesday

In the afternoon, the pictures were discussed by small groups. The children were proud of their pictures and quite willing to have them shown, identified, and discussed in detail. There seemed to be no reluctance to point out the outdoor toilets, water barrels, clotheslines, and so on.

The pictures were then mounted on each child's background, prepared on Friday, and are on display around the room.

Activity 11-- T.G. PP. 79-81. Showed the films "Malobi" and "A Navajo Boy." We used the stopframe throughout both films and discussed the questions.

Wednesday

Activity 12-- reviewed the films to see how much the children remembered.

Thursday

Children drew pictures of Malobi's home, stressing difference between hers and those of the children.

Friday

Began the post-test. We didn't quite finish, took at least thirty minutes per small group to go through the test and get responses from each child.

Objections to the test are much the same as we have about the first one. For 1st graders, especially those learning a new language, the discrimination pages should be much more simply laid out, with marked defining lines, or boxes, to keep the children's eyes on one row at a time. The questions need to be worded much more simply. Have notes in my booklet.

Field-Test Report--Tuba City Public School, Tuba City, Arizona

Teachers: Helen Thomas, Ila Feibus

Students: Primary

Date: Final interview at the end of field-testing

Project NECESSITIES Staff contact: Tom Cracas

(Excerpts from taped interview)

Project NECESSITIES

What was your general, over-all impression of the unit?

Helen Thomas

We enjoyed working with it and the children enjoyed working with it. They were anxious for us to say "bring your packet" because they knew we were going to do something that they would enjoy. They achieved a lot of growth from it, in realizing that even though their homes are different, they are nothing to be ashamed of. I think their final activity really showed this.

Ila Feibus

I agree. In the beginning they were very reluctant even to say where they lived; at the end when they drew their pictures, they were happy to say, "This is my picture, this is my house."

PN

A sense of pride was created?

Feibus

It's still there. We still have the pictures up and they come to you and say, "Hey, look! that's mine."

Thomas

And they tell each other, "That's my picture, that's my house." They're willing even to point out the outdoor toilets, the barrels outside, the clothes-lines with the clothes on them, while at first they tried to give us the impression that they all lived in modern housing with running water inside.

Feibus

Because in the beginning if one student said, "Well, he lives in a hogan," the other would say, "No! No, I don't."

PN

They would deny living in a hogan?

Feibus

Yes. But after we took the field-trip, there was no being ashamed of where you lived. They had seen where others lived.

PN

Do you think this instills some cultural pride or acceptance of their own people?

Feibus

I think the African movie helped them see that there are other people who use sticks and mud to build houses and so it's not so bad. I was amazed to see that at this age they have this "being ashamed" feeling about what they are, where they live. I didn't really realize that it was that deep.

Thomas

I think they simply accepted the fact that they lived where they lived and there was nothing for them to be ashamed about. If they said they lived in a hogan, we said, "Oh, you live in a hogan? Tell us what it looks like. Which way does your door face?" They got so they could compare their houses with my house, even though there would be a tremendous amount of difference between them. They would say, "Well, you have lots of rooms, we don't have that many rooms," and so we'd say, "But you like your house, don't you? You have a nice house," and they'd say, "Yes, we have a nice house, we like our house."

PN

Did you have Hopi children in the classroom?

Feibus

No, we have no Hopi children.

PN

Do you think that this material gave enough of a general frame of reference for these children so that they themselves served as a resource from which you could draw information? Can they learn about their own culture through this material?

Thomas

I think so. I would tell them that I have been in some hogans but it has been a long time. I'd say, "Let me tell you about the ones that I was in, and what they looked like," and then I described several that I could remember. I would say, "I was in a hogan like this. Is this the way yours is, or does it look different?" Some of the children would say, "Well we have a real stove in ours," and someone would say, "I don't, ours is a barrel." Of course, I'm elaborating on their sentence patterns. Much of their response is one word, two words, inadequate sentences, and you just gather from what they say, pick it up and reword it for them and they say "Yes," or "No," and then they might try to explain it with another word or two. When they say they just had a barrel, I've seen them so I know what they are talking about. They're oil drums, with a square hole in the bottom where they can shove the wood in and light it. It's for warming; they build a cooking fire outside. I'd say, "Do you cook on this?" and they would say, "No! outside!"

Feibus

They say one word and you have to "in-build" their sentences for them.

PN

Do you feel that this approach helped the children to exercise more language than they might ordinarily with the curriculum used last year or the year before?

Thomas

Well, let's just say that it was helpful in that it gave us more sentence patterns to work on. The biggest part of our day is spent in sentence building, and this just broadened our sentence patterns.

Feibus

It gave us so much more to talk about because they felt that they had something that they could discuss with you. You could talk to them about their homes. I think the thing that really went best was the Animal Homes. They loved that. We took them for a walk, just around the school here, and at every little bitty hole, they got down on their hands and knees and looked in to see if something was in there.

PN

How would you classify the material? As far as maintaining interest is concerned, did it do a good job or a poor job?

Feibus

Oh, I think it did a good job. They still are looking for animal homes, and they still look at a house and say, "There's a Hopi house," if it's built of stone.

PN

Do you think that they were able to discern differences and communicate more effectively because they are also learning English at the same time? Or do you think that didn't have much of an influence?

Feibus

I think they're looking more carefully at things because we lingered on this. "What is the difference between these? What is the difference between these?" I think they are more observant now and are now more aware of the fact that there are differences, even if things appear to be the same.

Thomas

They conceptualize this; they are beginning to know this.

PN

How about functionality in differences? Were they able to see that similar things can have different functions because of their difference?

Thomas

I think they got this fairly well when we compared the African home and the Navajo home. You have to realize that we have quite a spread of children. My groups of children had a hard time answering such questions as why an animal built his home near water or in a particular place for a particular reason, because this had never really come up. Why does this animal live in a hole under the ground? Why does this animal live near the water? Some of the groups that I worked with had a rather hard time getting this idea. Why does a bird live in a tree? When I asked them this, they said, "Because, well, because they can fly." Not because the eggs are delicate and are probably more protected in a tree than they would be on the ground. They really never thought of things like the safety factor.

PN

Was this brought up? When it was brought up were they able to conceptualize the thought?

Thomas

Not really. I think this was probably one of the harder concepts for the children to get. I stop and think--I never questioned why I lived where I lived, and these children don't either. "Well, I live there because my mother and father live there." And when it says, "Most of these houses are built near water or near the store," well, it isn't true. Many times they're not. Quite a few hogans or houses are built some distance from any water source or quite some distance from the store. So this was kind of hard to bring back to tie into the fact that people usually build where they can get to water.

PN

What activities do you feel needed the most revision? What kinds of revisions would you make in a particular module?

Thomas

I wouldn't get so far away from home in the last activity. The idea of an African family isn't so good. They really cannot conceive of their closest town, which is Flagstaff, Arizona. Their spatial sense is nil. They just don't have it. Ask them, "Which store do you live near?" and some of them don't even know there is more than one store here in Tuba City.

Feibus

Especially the ones that come from the Gap. All they know is the one trading post there.

Thomas

They need to see different kinds of houses, but I think they can't relate Africa to here because they have no conception of where Africa is or what it is like to be in a place where it is hot all the time, where it is damp all the time, where there is nothing but greenery everywhere. They just simply don't understand that anymore than they understand the flat nothing of a place like Alaska. It is a very difficult concept to get across to them. They really don't understand.

PN

Could they see the differences?

Thomas

They could see the differences in the houses, the shapes of the houses, but when it came to climate or reasons why these houses are the way they are, the children have nothing to build on yet. I think if it were related more closely to home--such as, is your home like your friend's home, or is your home like your grandmother's home, it would be better. Or if you could even keep the material close, within the state--then if you could make arrangements for a field-trip to some place like Phoenix, which is very, very different from here, at least they would get a feeling for a tremendous amount of difference. I think that would be more meaningful instead of trying to get clear out of the country.

PN

Did you use the technique of showing the "African girl named Malobi" with sound or without?

Thomas

We showed it both ways--and with Mrs. Atson, the interpreter.

PN

What was your response? Give me a feedback on each way. Which you felt was most successful.

Thomas

They really do not understand what was happening with just the pictures. When we tried to ask them questions about it we got no response. So we tried it with sound and they got a little more. But of course, we got the most when we showed it again, and stopped and had Mrs. Atson explain in Navajo.

PN

So a combination of the stop-frame plus an interpreter is best?

Feibus

Yes.

PN

What other areas or modules do you feel need the most work?

Thomas

"Summer Homes" needs a lot more work. There are a lot more things that you could have included, like the tepees for the Plains Indians or a camper.

PN

That has been revised to include the tent, tepees, lean-to, log cabin, and the camper.

Thomas

The animal booklet needs to be revised; the animals are too unfamiliar. Nowhere in the teacher's booklet does it tell the names of the animals. I was calling it a weasel and she was calling it a mink. I was calling it a muskrat and she was calling it a beaver. This does need to be clarified both in the children's materials and in the teacher's manual, so we will have everybody calling the animals the same thing.

PN

Would it help to put a name under each animal?

Thomas

This would probably help, but I think really that I would like to see more familiar animals for this age of child. They really don't know what a muskrat is. In fact, I think I said in one of my reports that there were only three that they recognized.

They recognized the fox, the ant, except they tended to call it the spider too, and the wasp. They wanted to call him a bee.

Feibus

They love snakes! But there weren't any snakes, and in the test, when you asked what lives near the water, the first answer you get is the water snake.

Thomas

Or the fish, because they don't really understand the difference between near the water and in the water. These are some of the relative phrases we're working on, but they don't know all of them yet. Anyway, I think the animal book would probably need as much revision as anything.

PN

And animals that you feel would be more familiar. You mentioned the beaver rather than the muskrat, and the snake. And a skunk rather than a badger or a squirrel.

Thomas

I would also suggest simplifying the drawings of the animal homes. They sometimes are a little confusing to the children. Fine detail gets away from them. A broad difference they see fairly readily, but when you get down to fine detail, they have difficulty.

PN

Were they discerning these differences in detail toward the end?

Thomas

Not really. In lots of cases when you would try to get an answer from them about the ways in which things were different, they would try to give you something similar, even though we have stressed the different more than the like. Of course there are times when you give them the question. You ask them, "How are they different?" and you get no response so then you have to turn around and say, "Are they the same?" "Well, no."

PN

Good technique.

Thomas

So sometimes we had to reverse some things even though we know you wanted to stress the differences.

PN

Oh no, you have to do this. There is no question about it.

Thomas

The post-test needs to be revised. You don't want to put all those words in there at all. It really bothered my children.

I had one of the more verbal ones say, "I can't read that." Very upset with the fact that the words were there and he thought he was going to have to read it. I told him, "Don't let it bother you. I will read it for you." But they still didn't like that. They figured, "Well, that is my book. I ought to be able to do what's in it and I can't read, I can't do it." In fact most first-graders at this stage of the game couldn't read unless they were very, very simple sentences. Ila has suggested changes in the wording of the questions, which should be in the teacher's manual and not in the kid's book at all.

PN

Good. Do you think a possible alternative for the post-test would be to readminister the pre-test?

Thomas

Well, if you redo the pre-test...

PN

You have difficulty with that, too?

Thomas

Well, there are too many things on one page. Also, you didn't have the questionnaire in. Your page needs to be set up so that it is so well defined that the students don't need to look all over the page to find a difference or a likeness.

PN

Are there any other materials that you felt they like to work with?

Feibus

I think they enjoyed building. You could put more play activities in. You know when I was in college they told me I wouldn't be able to get Indians to participate. But we had them participating about the corral and rounding up the horses.

PN They enjoyed that?

Feibus

They wanted to do it over and over and over, and the next day, "Can we play it again?" If there were some way to let them role-play even more--I suppose you could, now that I think about it. They could build a Hopi House and a Navajo House out of boxes or something.

PN

In this next unit we would have something like three or four different activities where role-playing is involved and there are three activities in which they use prefabricated types of materials.

Thomas

When you get the child involved, then the material is more meaningful to him. Many of our notes say this question is indirectly related to the child. You can't deal in the abstract. You can't say, "How is the Ibo Tribe different from the Navajo Tribe?" This doesn't mean anything to them. You have to say, "Remember the picture we saw about the little black boy and the little black girl, the African children? Do they look like you? Did they do the same things that your mother and father do?" It has to be closely related to themselves or it doesn't mean anything to them. Also, I have made a note on the narrative. I don't care for the set-up. I would prefer that you set it up with a purpose, the materials needed, and then a very definite procedure.

Feibus

The narrative form gave me a picture of a teacher standing in front of a class like my nieces and nephews have down in Scottsdale. I could ask them this. Fine. But this is the classroom I had pictured: a typical white middle-class classroom. I had in no way related the teacher of the narrative to our class situation.

Thomas

With a group of children who are bilingual, you have to be so careful about the way you present material, the way you elicit an answer from your child. We cannot talk to the group that is slow in English like we do the rest of the children because they don't understand. In fact, often we have to get the interpreter and say, "Now you tell them what I am saying, tell them in Navajo, so they will understand what we are talking about." Then we do it again in English and show them right down the line. In Navajo it's this; in English it's like this. Because we are trying to give them English while we're at it. So we did use your material for sentence patterns and drills. To give them something to talk about besides what we did in the classroom.

PN

So you did cross academic lines and use math and other subject areas like social studies to give them English. Great.

Thomas

Yes. We would accept a single word as an answer but it was given back to the child in sentence form and they were asked to give it back to us in a sentence which was oral English. Many of the things we did, such as when we used the rulers to measure and to make their plans, was really to use their arithmetic.

PN

Do you think the PN material actually complemented some of the other subject areas? Did it provide a vehicle by which you can teach arithmetic a little more practically?

Thomas

Oh, yes. We got them to count. "How many sheep do you have?

How many goats do you have?" Because they are still just learning to count, it has to be very simple.

Feibus

And the shapes. They still have no concept of what we are trying to do, but they are getting better. They are beginning to frame their pictures with triangles, circles, squares, and rectangles.

Thomas

One of them did note that the Hopi house is shaped like that when they looked at the rectangle.

PN

They gave the shape with their fingers?

Thomas

They were pointing to it as they were making a design. One or two of them did say, "Well, the Hopi house has a shape like this," or "Your house is shaped like this. My house is shaped like this," pointing to the circle.

PN

They were starting to comprehend these differentiations? In larger detail?

Feibus

We changed the room around on them. We put the alphabet up where the flag used to be and never said anything. The next morning we said, "All right, everybody, let's say the Pledge." Some of them gave the elbow to their buddies and said, "Look, they changed the flag. It's over there." Because there were a handful that didn't notice.

PN

Does this help develop this kind of awareness?

Feibus

I don't know. I think so. They noticed a lot of things.

Thomas

I feel that they are noticing many more things. They were showing us birds' nests in the trees that I didn't even know were there.

PN

What units did you feel needed the least work? Were really adequate, were successful just the way they were? Were there any such modules that gave you that impression?

Thomas

Not for our children. We had to elaborate on each one. I think probably the most successful one was the "Animals" booklet where they had to know the differences between the sheep and the horses and the rabbits. We probably did as little extra on this part as we did with any part of the book. They enjoyed it tremendously. We couldn't stop them. They would say, "Let's go to the next page," and they wouldn't wait for anybody. They just went ahead on their own. They didn't even ask, "May I turn to the next page?" They could see. They got the concept in the first one or two pages.

PN

Do you think the simple line drawing helped foster this?

Thomas

Oh yes. They are not really ready for very detailed things yet. When you get too much in a picture they tend to shut it out because it's too much.

Feibus

Also, they could feel secure when they had to draw on the next page. Tell them, "Draw two that are different," and they will say, "Mrs. Feibus, I don't know." Well you can show them on the board. It just takes a couple of circles. And they feel better when they realize that it doesn't take very much to draw it. They'll say, "Oh, that's not too bad."

Thomas

They like something that they can imitate, and if it's too elaborate, they can't imitate it.

PN

The intent of the whole narrative was to provide a teacher with a vehicle which would give her an opportunity to deal in detail, but which can be broadened in any area she wants. To provide a springboard from which she can at least have a few different ways of attack. An old problem you know; do you think that it achieves this?

Thomas

Oh, I think so. Every day in a number of ways, it provided us with art activities. Our group of children do not work well with a large group. You have to slot them into smaller areas, and it's no easy job to keep six or eight groups of children doing something different every fifteen minutes. If you try to hold them longer than fifteen minutes at one thing, forget it. They lose interest and are ready to go on to something else. So it has provided us with many different activities for use in the Art Center. And yet it was related to social studies and sometimes related to arithmetic. And then it helped outside, too. They're pretty wild outside when they don't have something to do, and they got started building houses, and my word!

PN

On their own?

Thomas

Oh, yes they started it by themselves.

Feibus

One kid came running in from recess. "Mrs. Feibus! Mrs. Thomas! Look!" So we went out and they had built their houses. We just spent the afternoon building.

Thomas

They got leaves, sticks, and branches, made gardens and put trees around their houses. They built hogans, Hopi houses, and castles with moats around them. I don't know where they got the idea.

Feibus

And then some of them would just build the walls. One girl had just built a small room; I said, "Is that the bathroom?" She shook her head "yes." "Tub," she said. She had built the tub, and the toilet was right there. I couldn't believe it! She had every room; she had the beds made, all out of sand, and supposedly she was one of the kids who didn't understand it. She's very quiet.

Thomas

Every single child became involved. They all wanted to do it! They all built their own little thing, and they became very upset when some of the other children came around from other rooms. They came out at recess and they'd chase them away: "Don't mess up our houses!" They would have loved to bring them into the room. We just have nothing like that. It would be nice if everyone had a sandbox where they could just build things, tear them down today and build them up again tomorrow.

PN

Is there anything that you'd like to add in summary?

Thomas

Only that it was most enjoyable and we did find the material a real help in our classrooms. The children enjoyed it and we enjoyed it.

Feibus

I've often wondered what we'd do without it. It acted as a nice basis for something new, and it added so much fun for the kids. They really enjoyed it.

Thomas

There was no drudgery as far as they were concerned. This was not work. This was fun for them.

Field-Test Report--Warm Springs, Oregon, Public School

Teacher: Mrs. Beverly Horttor

Students: First grade

Date: October 28-November 12, 1969

Project Necessities Staff contact: Tom Cracas

(Teacher Report)

Tuesday, October 28

I received the packets on Monday, October 27. The boxes were delivered to my room. The children were curious. I stalled them until the following day. Several helped me open the boxes on Tuesday morning. They kept the long large pieces of yellow or pink paper. I put the packets away and told them that every child would get one later. Only fifteen arrived, so I'm using the sample packet that came earlier in the year.

I had previously gone through the sample packet and teacher's guide. I spent quite a lot of time trying to tie in questions from the introduction to use in the classroom narrative. I am still wondering just how I will do this when I come to the home unit narrative. Perhaps footnotes or reference page numbers in the introduction would help where appropriate, to tie in or refer to the narrative.

As I put a folder on each child's desk I explained that this was something special for each child. We would learn about "it" a little at a time and would be using it for quite a long time.

One boy immediately said (emphatically) "I'm going to take it home!" My reply was that we would use them for awhile in school and he offered no resistance when we "stored" them in the bookshelf after use. (Our desks become crowded--the children suggested the bookshelf.)

I asked the children to make a circle with their desks. The students were asked to take out a black or purple color crayon. I asked them to (teacher held folder and pointed to Name) find a line on the folder that said Name beside it. Some had difficulty so I suggested that if they were having trouble they might turn the folder over (demonstrated). Most found the line but some received help from their neighbor. I also suggested that they pretend there was line on the other side and put their name on that side also. (This would prevent one side from getting "lost" from the other.)

I then asked, "What does this (holding folder) look like?" Replies were a "book, suitcase, lunchpail." A student remarked, "There's something in there." I asked them if they had ever seen a briefcase and several raised hands (this is not always an indication of positive affirmation at this age). I suggested that possibly they had seen lots of men on T.V. or in movies carrying briefcases. Emphasized that it did look like all of the things they suggested (and renamed items) and that we should look inside. "How do we do this?" "We untie it" was the immediate and enthusiastic response. Teacher: "Have you ever seen anything like this before?" (reference to the laces we're working with. Several replied, "on my shoes" or "shoelaces." Once opened, two children immediately said, "There are numbers in here," and everyone started to open pocket #1. I asked how they opened it. "With a button," they replied. Several had already removed the cards so I suggested that those that hadn't could do so--at this point several started to go on so I suggested that we could talk about the materials more easily if we all stayed together. The remarks about the individual cards were: They have circles, squares and rectangles. Some had difficulty locating the long card behind pocket #1. Very excitedly the children commented rapidly, indicating they realized the small cards contained similar images to the small cards and were matching them appropriately. Many were already identifying #2 and indicating an interest in moving on. We returned cards to pocket #1 and removed the book from #2, putting it back before continuing on to the next. When we removed the first book one child suggested that we should put our names on it. I recognized it as a good idea but suggested that we would do this when we used it. I think it would be wise to have a place on each booklet for the child's name, and I think we should have matched by locating the number on each pocket with the number on the book.

After examining all of the materials we unzipped the zipper (discussing its use as we had each of the other fasteners). We discussed the sounds of each fastener. The structure of the folder is terrific for reading readiness.

The most easily named fasteners were button, shoelace, and zipper--the snap was called a button--but after much deliberating one student came up with snap. Velcro was unknown by name.

After separating the sides by unzipping and discussing the workability and ease of using one side at a time, we put the folders back together. The zippers gave some children trouble. One child said he could not tie a bow and several laced them back but not properly. The children eagerly assisted one another even though the teacher did not encourage or suggest this.

Wednesday, October 29

The desks in our room were "scattered." I moved a chair to a large vacant spot in the room and requested the children to come sit on the floor in front of the chair, cross legs, hold head in hands covering eyes (hide your eyes and lay your head in your hands) and warned that if anyone peeks they go back to their desk until the game is over. I then sneaked away, picked up the packet and returned to the chair. Two children had to go back to their desks for peeking. I worked the zipper sound first, then the snap and Velcro in that order. The zipper was guessed immediately by one child. The snap was called a button and the Velcro was paper tearing. Teacher--"Does anyone remember hearing these sounds before?" "No" was the reply. T.--"Where do you think they are coming from?" Several started to peek so I invited everyone to look. They were very excited. I demonstrated the lacing stressing the left to right and right to left and x's if done correctly--then passed out the packets, directing children to move their desks back into a circle position.

Children immediately started to try out the sounds of fasteners and checked the lacing. There was a lot of discussion going on.

We removed the cut, color and paste pictures and put the folders inside our desks. The children were told to lay their crayons on their desk with the pictures, then to come and sit on the floor in front of teacher. We talked about the pictures and the colors that could be used. Upon returning to their desks some were drumming on desks and singing Indian chants. As they began to work they started to talk quietly, and they were working very carefully.

We worked about 20 minutes and put the work away.

Thursday, October 30

We reviewed the names of fasteners and those that make noise and those that are silent and where each of these might be found in other places.

The students finished coloring and cut and pasted the pictures on the outside of their folders. Some cut very well and others just cut around the outside in a circle fashion. Because they had all been cautioned to cut on the lines and do their best I did not tell any of them anything other than general statements that I could see they were being very careful with their work and I really felt they were. Most of them wanted to complete all of the pictures but the task became too much for some.

On Halloween we had so many activities planned that we did no formal work with the folders, but some finished coloring and did more cutting and pasting during some free time.

Monday, November 3

I did the "card" discrimination today. The students were very excited but the teacher was frustrated. After working with it I felt very positive toward the activity, however. I read the directions in the sample I had received earlier, in the teacher's guide that came with the packets, and again this morning before school. I glanced at the directions again while the students were opening their packets. I preferred grouping the children in threes and fours (moving their desks so that three and four children faced each other) before giving them their packets. Right away the children wondered what we were going to be doing.

I did not previously write their names on the strip or small card because all of the children can write their names legibly. This was the first thing they wanted to do when we removed them from the packets. Had I received this a few weeks earlier I would have done the writing of names.

I sat with one group of children and had the other children leave their cards on their desks and stand in a circle around our group. If my room had had more than sixteen students, we probably would have demonstrated to only one group at a time. As I started to play the game I had to stop the demonstration and re-read the directions. I shuffled and dealt only my cards first and immediately realized that would not be correct.

I did not put the long strip on the bulletin board as suggested but preferred laying the long strip on the desks--one on each desk. With groups of three or four they could all see each other's strip and whether the figures were inverted or right side up made no difference to this particular group of children, already familiar with these shapes through kindergarten experience.

After the demonstration, the students returned to their small groups where their cards were waiting and eagerly started to play the game but ignored waiting until one individual had completed his strip before going to the next. All students wanted to match and fill the strips and trade cards at the same time within the groups. But they were having fun, being silent throughout the activity.

As I walked around trying to encourage one at a time in rotation, many adjusted. The students loved the activity and the silent activity added to the fun of the game.

When I first grouped the students for the project one child came to the demonstration group commenting that he thought we were going to play an Indian game. He started to drum (our circle seemed to represent the drummers) and sing. I motioned to be silent and began to deal the cards. I dealt only mine at first; then re-read the instructions and started again.

Would the directions be more easily understood if they read: "Deal four sets of cards one at a time, face down and one on top of the other?" I probably should have tried a practice game at home with my family the night before.

Tuesday, November 4

I asked each child to put a brown and black color on his desk, then I made sure each child had these two colors on his desk. The children removed their pre-test booklets from their packets at the request and demonstration of the teacher. They wrote their names on the back of the booklets.

The children were directed to leave the booklets and colors on their desks and come to sit on the floor in front of teacher standing by the chalkboard. I made * and asked what it looked like to them. A wheel and a star were suggested. I agreed it looked like both and made a ☆ and asked the same question The star was the only response this time. "How are they the same?" Response--both have straight lines. "How are they different?" Response--one is good (pointing). "What makes it good?" Response--looks better. "What makes it look better?" It has points. Then teacher made: * * ☆☆ *☆
Pointing to **, I asked "What would you say about these?" The response was, "They are the same." Pointing to the middle the response was the same and for the last the response was "different."

The children were told to return to their desks and open the book to the first page (teacher demonstrated). Some children made an error in turning pages. Some turned again before we finished the first question, and while the teacher was checking to see if they had the correct page, I read the question and the children responded. We continued on through the book.

The children removed "Animals We Know"--at the direction and demonstration of the teacher. I showed them my pre-colored booklet and told them to do the same with their booklets. I had colored the sheep black so we sang "Baa Baa Black Sheep." Three children were absent so I called four to the "study" (long rectangular) table for the verbal form of the test.

I had read the instructions several times, but as the students started to respond verbally I realized that tallying correct responses could be quite a problem for me and fortunately I had arranged booklets so I could record verbatim (almost the verbal responses of each student.

QUESTION # 2: "What are two things that you do that other children in another land do differently?" (As they started answering I mentally thought of how other children--Asian, European, African, South American, etc.--do each of the things mentioned in the responses. I also thought that with T.V. maybe Question #2 could be ambiguous in some instances. The following are the different responses I recorded:

eat grass, drink water, they walk on the water, get on horses, write name on horses (I think they were referring to branding), clean-up, eat hay, they don't eat cow, go hunting, go fishing, eat, go to school, go to show, play, fix the bed, play on swings, ride bike, animals, swim in the water, work, feed the animals, color, play cars and trucks, play with toys, play with puzzles, go in the house and watch T.V., cement (reference to side walk), play marbles.

QUESTION # 3: What are two things that you do at home that children in other lands would do at home? The following are the responses:

cut grass, write on the chalkboard, play toys, take the babies to store, put babies in bed, write numbers, milk cows, ride bike, don't drop babies, don't know, go to castle caves (teacher further questioned and student responded "like those on hills" and pointed toward the rimrock we can see through our classroom windows), play in bedroom (play "house"), go to town, cook, empty baskets, get done, I play and fix my bed, wash the dishes like a woman, play in snow, go to take naps (take naps), go on picnic, go to grandmother's, play trucks, pet kittens, play toys, go to beach, go to school, go swimming, riding horses, do work, they go in the mountains and pick huckleberries.

QUESTION # 2 and 3, most students gave only one response but gave another after other children responded, not two responses together as directions requested. Most children even in the small group were eager to respond but not anxious to listen to any other child respond or explain their response.

On the last question I chose fork and spoon, Indian and Eskimo, and goofed when I chose mountain and valley instead of home and school.

HOW ARE A FORK AND SPOON ALIKE?

cut cakes, eat with it, they cut it with knife and dish it out, cut with it, go to camping with spoons, sometimes we go on picnic and take forks and spoons, fork has straight deals, 'cause they're not...eat with spoon, knife ain't sharp...fork's sharper, what's spoon? (point to picture in book), they go to the store and get something, fork's sharp, spoon's round.

HOW ARE A FORK AND A SPOON DIFFERENT?

fork is sharper...spoon's round, they have a knife and butcher a meat, spoon is different, spoon is flat like this, knife sharper, not the same, fork has points, the spoon doesn't have sharp deals, dig holes and put plants in things, watch T.V. and little people come jumping out on fork (another child laughs, and student responding said, "Well, I seen it on Land of the Giants"), spoons are silver, they wash the spoons, they turn colors.

HOW ARE ESKIMOS AND INDIANS ALIKE?

different, they go in tepee, mother cooks, go after giggling and T.V., dress up Lucy with necklace, bracelet and blanket; go in castles, kill cowboys, Eskimos don't dance, both Indians, Indians have arrows, bows and feathers in hair, Eskimos build houses like snow, Indians don't have stripes, not the same, they burn 'em up, they not Indian, they kill somebody and eat 'em, Indians don't have thick fur.

HOW ARE ESKIMOS AND INDIANS DIFFERENT?

Indians don't wear shirts like Eskimos, they wear shirts, and hunt, dress up and go hunting, they wear necklaces, they kiss, sometimes they tomahawk, Indians go to cousin's house, sometimes Indians have stripes. Teacher: "Where?" Response: "On face," because they ain't in both wars, Eskimos live in snow, Indians live in a tepee, they turn color, burn people up, different hair, watch 'em dance on T.V.

HOW ARE A MOUNTAIN AND A VALLEY ALIKE?

They climb hills, they have straw houses, they find tepees and make a tent, both are same kind of hills, hunting, people go up to kill deer, ski on mountain, different, they go pick raspberries in valley, mountains bigger with snow on it.

HOW ARE A MOUNTAIN AND VALLEY DIFFERENT?

Because the valley has lots of animals, they camp in tents, not same, because mountains don't go fishing, sometimes mountains have high cliffs, watch volcano on T.V., because there are weeds in valley, they find tepees and make a tent.

Summary on the non-verbal part of the test for 12 students:

Some circled only one of two pictures in the box--not one circle around the box containing two pictures. If each box counts a C or ✓ then the 12 students test results were as follows:

	DIFFERENCES	SIMILARITIES	DIFF AND SIM
	C -- ✓	C -- ✓	C -- ✓
1.	5 -- 0 *	5 -- 1	3 -- 2
2.	2 -- 3	1 -- 5	4 -- 1 *
3.	3 -- 2	4 -- 2	5 -- 0 *
4.	3 -- 2	2 -- 4	5 -- 0 *

5.	5 -- 0 *	4 -- 2	4 -- 1 *
6.	0 -- 5	3 -- 3	4 -- 1 *
7.	3 -- 2	2 -- 4	5 -- 0 *
8.	4 -- 1 *	3 -- 3	2 -- 3
9.	3 -- 2	3 -- 3	5 -- 0 *
10.	3 -- 2	3 -- 3	4 -- 1 *
11.	3 -- 2	3 -- 3	5 -- 0 *
12.	4 -- 1 *	6 -- 0 *	4 -- 1 *

* These are the ones that I considered above average.

After I finished this I wondered if you could use the pictures of the car and train; sun and light; and bow and arrow; bird and plane; and two rabbits with the following questions to determine how well they distinguish between same and different.

How are they the same?
How are they different?

If your purpose is to see what they already know about the items on the last page under Question # 2--perhaps the children might answer differently if the question read: Tell me how home is different from school.

The pre-testing took me about one hour with only twelve students present.

Wednesday, November 5

We had previously colored all the pictures in the book during the pre-test. This probably contributed to the "success" of the class in discriminating differences. We did mostly as the narrative discrimination described. Some children in drawing their own pictures made differences in animals like: one's mean and one's nice; one's fighting and one isn't; one has a big ear and one a little ear; but mostly they drew animals with differences as in the book.

They were very excited about the activity and seemed to enjoy it.

Thursday, November 6

Removed "Home" packet #3. Left books on desk and put folders in the desk. Children were asked to sit on the floor in front of the teacher. I ask each to tell me about their home. Where it is, if it's shaped like a box or a ball, if the roof is pointed or flat, what color it is, what is it made of, does it have an upstairs, a basement? What is outside around the house, grass? trees? flowers?

Then we returned to desks and opened book. The cliff dwelling house was identified by one boy as being seen on T.V. On T.V. he had seen Indians living in that kind of house. Some others said they had seen the show also. To some the home was not "real." I would like also to have a transparency and picture in book of "shack" type house. I think this would be familiar to many students.

Discussion centered around the description of each home, the materials used in each. I also used a map of the U.S. and told them where they would find the first two homes in relation to where we live and what method of transportation we could use to go there.

Some students said Ugh! and made verbalizations indicating plainly they did not like the hogan or pueblo. I asked them to raise their hand when I pointed (on the last transparency) to the house they would most like to live in. All hands went up on the contemporary, one on the hogan, three on the pueblo. I asked them to raise their hands if they would live in (pointing to each separately) the homes if their parents lived there; some indicated they still would not want to live there. Lesson concluded, and materials put away.

Friday, November 7

Nothing done with material. We use the 'Weekly Reader' on Fridays.

Monday, November 10

Several or all of the children had been to my house trick-ortreating for Halloween. I called them to sit on the floor in front of the chalk board. I started to make a picture which they guessed as a house. I asked if they could guess whose house and someone guessed it was mine. They were all eager to say again that they knew where I lived and had been to my house. Below that picture I started the floor plan of my house and told them that this was still my house but to see if they could tell how it was different from the first picture. We discussed the floor plans and the furniture I had put in, then I asked them to make the same kind of picture of their house. We did not use clay as we did not have enough. Some students did extremely well for first-graders on their floor plans. We had each child point to the floor plan as I held it (children seated on the floor in front of me in low chair) and explain their house and furnishings. At storytime after lunch we had a filmstrip (old one but I did not use the printed words, only the pictures) "Indian Houses"--put out by Curriculum Films. We compared them as to usefulness in different types of climate and as to furnishings and floor plans of more contemporary homes. They listened in the afternoon during reading seatwork to the SRA record #3, "Families are Different."

Tuesday, November 11--Holiday

Wednesday, November 12

We took out #3 again, the book on homes. We reviewed what we had said about the homes. We talked about possible colors for the homes and how the color of materials used compared with the color of ground and surroundings outside. Because the pueblo in the filmstrip on Monday had been pink, we talked about the red roads on this reservation and surrounding area. Some said they would bring a piece of red rock to school. I read to them the stories from SRA Resource Unit #3 on the Caribou Eskimo, Bushman, and Pueblo (after they had colored the homes and we had showed them for sharing ideas.) They did the coloring during math for seatwork.

I had ordered the film, "AnimalHomes", from our county library. It sounds like it may be different from the one described in your teacher's guide. We showed it during storytime and talked about how the animals built their homes in certain places because of availability of food and ease of protection from enemies. This film was from Churchill Films in Los Angeles. If yours is not the same I would like to use it next week if you can send it (November 17-21). Otherwise I will have to use this as reference with activity #6. I think I also have appropriate magazine pictures to stimulate discussion for analogous thinking.

Although we touched on it today I will probably do more with it next week, as we didn't really make the comparisons as completely as I thought we should. This is a brief summary of the work we covered before receiving your materials.

Our basic text is D.C. Heath, A New Home Town:
Unit one--The new home
New family in town
What should they do?

Our supplementary is: Science Research Associates: Our Working World: Families at Work

Lesson #1--Getting to Know the Family + corresponding pages in their resource unit + workbook using the opaque to project the image on board. Class discussion and marking.

Lesson #2--Families are Alike + Resource Unit for second half of child's text + workbook using the opaque projector as above.

Movies from our county library:

"The New House"--watching the building of a new house completely from scratch
"We Live in a Trailer"
"Families and Weather"
"Going to School is Your Job"

Magazine pictures for discussion:

living room pictures, kitchen, bedrooms, bathroom

The children have a very positive feeling toward the Projet NECESSITIES materials. It appears to be highly motivating.

Field-Test Report--Warm Springs, Oregon, Public School

Teacher; Mrs. Beverly Horttor

Students: First grade

Date: November 17 - 20, 1969

Project NECESSITIES staff contact: Tom Cracas

(Teacher Report)

We looked at the Summer Homes book. We talked about the filmstrip we saw on Indian homes. We discussed the home on the front of the Summer Home booklet. Where would you find it? When would you use it? Why would you use it?

How do you keep your home cool in the summer? Where do you get your water? If you did not have a sink or faucet in your house where would you get your water? Which houses (in the book) might not have a sink? Which would? Where would people in each house (asked as separate questions) get their food? This fell flat as some thought tigers and elephants probably grew around the hogan and pueblo. I asked what kinds of foods we eat that we do not buy in the stores. That also was not successful so I asked them to pretend there were no stores in Madras, Warm Springs or Portland, then what would we eat? Animals (bear, deer, elk), birds (named local birds) and fish. Then I asked what they could find to eat that was not animal and grew from the ground? There answers were: roots, choke cherries, wild celery (they used the Indian name) carrots and berries.

The children listened to Congo Boy,(a book with a record from the Scholastic Book Series) with the aid of a listening center during seatwork activity for reading.

The True Book of Houses, from the Children's Press, by Katherine Carter, 1867, was our storytime activity.

November 17 - Activity 7

I told the students that today we would try to pretend to do the things a family would do. We would have a play. The children were asked to make a picture of what they do with their families after school. They could be doing something outside the house or inside. This was assigned as seatwork while we were finishing up our Math. I had planned to have class discussion of the pictures then have the children pick two or three activities to role play but, I was interested in the pictures. I decided to have each student tell me individually about their picture of the family activity. I recorded their pictures of family activity and their story in written form on the pictures.

The pictures showed various activities; playing pool at the community center, watching movie on T.V., children fighting, playing catch with a ball, playing basketball, football, older brothers and sisters doing homework, etc. I stopped the activity after each had told his story. (When not telling me their story the children were cutting and coloring pilgrim and Indian children pictures for Thanksgiving scenes. I decided rather than role play any of these activities we would use the pictures for a bulletin board display. (The parents spent a lot of time around the display during Parent-Teacher Conferences). The bulletin board is in the hallway, outside our door.

I was tempted before doing Activity 7 to omit it entirely. The family activities are numerous and depended on the seasons. I couldn't get excited about role-playing the activities in sequence with what we had done.

I learned which children understood activities of family units and who could describe the activity with little help. When a child had difficulty expressing his idea I asked questions. They seemed to enjoy the individual attention for this activity.

November 18 - Activity 8

We did not have the movie so we recalled the one we had last week. The children remembered many animals and the materials of which the homes were made. The movie like yours was called Animal Homes, but seemed to show different animals. I also read: "Let's Find All About Animal Homes" by Martha and Charles Shapp, Pub. C., Franklin Watts, Inc., 575 Lexington Ave., New York 22, N.Y.

We discussed questions listed in the narrative that were appropriate. I added a few and as I read we talked about what the animals liked to eat and if we could see any place in the picture that looked like a place to get food.

When we compared animals to "Animal Homes," I used the overhead projector to show the pictures. I used the overhead projector every day for writing instructions and had used it for the materials that you sent me. The children enjoyed it very much. They requested I use it today as I had done with the preceding NECESSITIES material. The children seemed very excited about this activity. During the activity there was one way-out reaction. One girl volunteered that the goose ate mice. Some of the students corrected her.

I saved the last two exploratory comments from the narrative for Activity 8 to introduce Activity 9:

> "Name some ways in which your home is built differently from animal homes."
>
> "Name some ways that your home is different from your neighbor's home."

November 19

PARENT*TEACHER CONFERENCES ALL DAY

November 20 - Activity 9

We have three pictures hanging in our room. They all have some similarities and some differences. We walked to each picture and stood in front of it talking in detail about the first then comparing the similarities and differences and "completeness" of the pictures.

Then the children were asked to sit on the floor in front of the chalkboard and I asked them to name the ways their homes were different from that of animal homes. I found myself also saying, "What does your home have that the animal home does not? How is it different? We made the following list: furniture, door-wood, rectangular, animals have holes or open spaces, kitchen, living room, bedroom, bathroom, car, brick, wood-lumber*-our wood goes from the forest to a mill then we use the lumber. The animals use the wood just the way they find it. Lumber*-roof, lights, electricity*, telephone, faucets*, gardens* and porches.

Three different children gave descriptions of their homes. The group grew restless so I showed them the paper on which they would make crayon drawings (they did not have a choice of media as this would be seatwork while we were correcting math in small groups).

It is possible that doing this another time I would have done this activity following 5a before doing interiors of homes. (The pictures showed more detail than most anything we have done this year).

Activity 10

I used the Opaque projector to project the children's pictures. We had made our pictures on too large a paper to project the whole picture at once in most cases. They loved seeing their pictures on the big screen, but I had to use questions to get most of them to talk about their picture. I should have projected more of their pictures at the beginning of school, starting with just identifying student with drawings then adding student verbalization, hoping for a little more each time. I would like to have done this at least three time before this activity.

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*Suggested and elaborated on by the teacher.

Activity 11

Again, I did not have the film and this time I could not get one to substitute. I ordered one but it did not come in. So I read three books using the questions in the Narrative:

Clark, Ann Nolan, The Desert People, Viking Press, 1962
Swim, Robert, Paulossie-An Eskimo Boy, Holt, Rinehard and Winston
Clarke, Mollie, Congo Boy, An African Folk Tale, retold, Scholastic.

The students were interested in these stories, and answered questions very well.

As time was short and we had lengthened the time span through Thanksgiving vacation plus illness which took half of the class and eventually the teacher, we went into the post-test. I did the post-test in the same way that I had done the pre-test writing down all that the children had told me by each question. This time it became a contest among some children to see which one could have the most words written in their book, believe me--this was not teacher oriented or encouraged! Only twelve students were present on December 5th, the day of testing.

I was most surprised when I corrected the post-test to find that as a class the children had discriminated much better than I had thought they could with most of the items on pages 1, 5, and 6.

These are the results of the twelve present.

Page 1   1. 1   2. 6   3. 7   4. 5   5. 5

Page 5   1. 9   2. 7   3. 10   4. 8   5. 7

Page 6   1. 4   2. 1   3. 7

On the verbal portion of the test I changed the comparison questions to Congo and Eskimo or Indian, because we did not get to view the films but read books instead.

The following are the answers received to the questions:

Page 2. #1 - the sheep, hops, they eat different, the rabbits different, the rabbit hops, sheep can't, one eats nuts, the sheep run, horse has a tail, sheep don't have horns, rabbits can't walk--hop around, they don't have tails--sheep, girl rides a horse, bunnies hop and lambs don't, rabbit has long ears, sheep has shaggy hair, skinny sheep, rabbits have bush heads, rabbit has floppy ears, sheep has shaggy hair, jack rabbit, rabbit has bushy tails.

Page 2. #2 - ladder-pueblo, hogans do not have ladders, hogans don't have chairs-do pueblos? No, because it doesn't have a door-a pueblo doesn't have a light, a pueblo doesn't have steps, pueblos do not have stoves, pueblos do not have cars, pueblos have mud, some are wood-pueblos, pueblos have grass, hogans have grass, hogans have straw, hogans look different.

Page 2. #4 - A cabin is not the same as a house, the winter home doesn't have grass, cabin, a winter home has shade and air, summer homes have a roof and no sides, it doesn't have a store-igloo, igloo has a door, some of the people stay at the ocean, Eskimos kill seals in the winter, summer is warm on cool days, they walk long ways, summer has shade, Eskimos have ice built with them, a summer house has windows, because Eskimos cook inside and make fires, They have windows in summer homes.

Page 3. #5 - The bears live in the mountains-they eat fish,rabbits, bears live in caves, deer, elk, coyote live in caves in the mountains bear, mountain lion, rabbit lives underground, baby deer, bear, rabbits, fox, the birds go swimming, the horses live in them, some of the squirrels live in the trees, some birds fly, black bears live in trees, birds live in nest, ducks swim in water, dogs, parrots, bears have caves, squirrels, chipmunks, wolves have caves.

Page 3. #6 - Deer, bear, fruits, berries, bear, goats, corn, carrot, meat, steak, deer, salmon, some of them go to bed, they bath, Navajo eats meat-Congo eats bear, spoons fish, meat, deer, Indian food, spinach.

Page 3. #7 - Wood, grass, Eskimo-straw, rock, straw and sticks, Eskimo-shade and sticks, mud, wagon wheel, sticks, wood, igloos, straw, they live in ocean-Congo's, homes, wood, Congo makes it with straw, dried eels, Congo's make home out of grass and weeds and wood, they make it with ice-Eskimos.

Page 3. #8 - Eskimos have ice homes, Indians have moccasins on, Congo boys don't have snow, Indians live in tepees, Big Congo look for little Congo, Indians wear Indian clothes and feathers, Eskimos kill seals and polar bears.

Page 4. #2 - Squirrel, skunk, rabbit, alligator, shark, deer, rats, skunk, snakes, rabbits and snakes don't hop, raccoon, snakes crawl around, looks like seals, rabbits, robin, parakeets and ants.

Page 4. #3 - Fish, beaver, eels, seal, alligator, shark, raccoon, fish, alligator, fish, crabs, snakes, salmon, ducks, fish, ducks, alligators, store fish, rabbits, sharks, scorpions, crabs,whales.

Page 4. #4 - Chickens, hawk, eagle, bird, hawks, bees, birds, bluebirds, woodpecker, buzzards, birds, eagles, parakeet, parrot, birds, birds, eagles.

It would still be desirable to me to ask for question #3 on page 2, Tell me about a hogan. Tell me about a pueblo. How are the hogans and the pueblos different? I received mostly one answer from a student at a time, sometimes I would receive another answer later.

I enjoyed field testing the material. The students relate well to the animals and most activities. I wish I could have had the material to complete before the holiday activities began. I hope you will ask questions about any part of this report you do not understand and I hope this has been helpful to you also. I intended to get this typed last weekend but I came down with severe bronchitis and my medication made me only want to sleep. This is a bad time for me to be sick as I have Campfire guardian and Bluebird leadership responsibilities-more than usual, also a class in intercultural relations to complete as well as obligations to my school class and family.

Perhaps you heard that the Confederated Tribes of Warm Springs, lost their leader of many years, Vernon Jackson. Many are concerned now that the tribes may suffer a regression. Mr. Jackson's nephew and tribal accountant is currently acting as Executive Secretary. Mr. Jackson suffered a heart attack, last week and died in a Portland hospital.

Will there still be a meeting in January as discussed last July in Brigham City?

Field-Test Report--Standing Rock Elementary School, Fort Yates, North Dakota

Teacher: Karen Swisher

Students: First Grade, 36 students

Date: November 12-13, 1969

Project NECESSITIES Staff Contact: Neen Schwartz

(Staff Report)

Classroom Situation

One class of first-graders--	16 pupils
One class of first-graders--	20 pupils
	36 pupils

Two teachers

Account

Pat Locke spoke with Tony Luscombe on Wednesday, November 12, 1969, at the in-service session. On Thursday, Neen Schwartz met with Mr. Luscombe and at that time he expressed his delight in receiving the materials. He commented that he felt the unit would complement the skills being developed in the Follow-Through Program.

He introduced Karen Swisher after a brief look at her class from an observation booth. She related that she would not be able to start the material until Monday, November 17, 1969, because she had not had a chance to read the manual. Neen made plans to meet with her on Friday at 11:30 a.m. since then she had no questions about the program. She was to review the material at home Thursday evening.

Field-Test Report--Fort Yates Public School, Fort Yates, North Dakota

Teacher: Karen Swisher

Student: Second Grade

Date: November 26, 1969

Project NECESSITIES Staff contact: Neen Schwartz

(Teacher Report)

November 18-19/Activity 1

The children were extremely excited over the packet. They loved exploring it. I let them explore as long as they wanted to. Little time was left during this class period for coloring, cutting and pasting so this was carried over into the next day's activity. (In all it took about 3 days.) One question I had was what the children do with the pictures they didn't use? I let them do as they wished. The children wrote their own names in the necessary places. I suggested they write their names on the symbol matching cards.

I was interested in their choice of pictures to be pasted on the covers. I wondered if there would be any grouping of any sort --there wasn't. The picture chosen most was the little Indian in the canoe.

November 20/Activity 2

I would suggest that this activity be dependent upon the type of children in the classroom. My children are immature and find it difficult to listen to directions. I tried miming, but found that the children were not paying attention, so I verbalized part of the directions and we tried to play the games without talking. The children found this very difficult. The symbol matching was very easy for them.

Activity 3

The pre-test will be carried out this week. We are having our normal interruptions, thus we aren't progressing too rapidly. I am purposely saving this activity for the last period of the day and yet the excitement and interest is high.

The children really do enjoy having their own little packet. Some have asked me what they will do with them when we are finished. Can you help me out on that question?

Field-Test Report--Fort Yates School District No. 4

Teacher: Karen Swisher

Students: Second grade

Date: January 12, 1970

Project NECESSITIES Staff contact: Miss Neen Schwartz

(Teacher Report)

Sorry for the delay in reporting. I realize now that I should have waited until after Christmas to start this unit. There would have been more continuity; but it is continuing to progress nicely.

Activity 4:

The activity suggested the children color the animal pictures but they had already done this in activity three. The children then drew the animals that were different, but they added their own differences making it more creative.

Activity 5a:

This activity gave me some difficulty. I didn't feel there was enough background material about the homes. I think labeling the homes would be to the teachers benefit. For instance we weren't sure about which was Athabascan and which was Eskimo. I don't really have much knowledge of anything Athabascan. Also why the houses are constructed the way in which they are? Why the ladder? We think we figured this out.

The children were able to see the differences in the homes quite readily. The questions they had, they answered through discussion.

Activity 5b:

The children really talked about their homes. They had some difficulty doing the floor plan. They wanted to draw a face-front view. They had more fun and were more successful with clay, proving manipulative objects are better for young children. The scale was fairly accurate.

Activity 6 - Summer Homes

Again more information would have been welcome. The children are somewhat alienated in realizing that their ancestors were Indians and lived in teepee's. They know that they are Indians, but like all children, Indians are Indians with feathers, etc. I hope to work this out as much as I possibly can.

One of the students lives on a ranch, but his mother works in town. Beautiful opportunity to discuss why he lives where he does and why he doesn't live in town.

Not all children are participating in discussions.

Activity 7:

It was difficult to get the children to come up with a conclusion to the story. They wanted to jump from rounding up the horses to branding them without thinking about how they got them there. We worked it out slowly. The children loved doing the role-playing and they got a little carried away!

This is as far as I have gone. I think we will finish the unit in about a week and a half.

Field-Test Report--Eagle Butte Elementary School, Cheyenne River Reservation, Cheyenne River, South Dakota

Teachers: Mrs. Claymore, Mrs. Sutphens, Mrs. Maloney,
Mrs. Longwood

Students: Four primary classes, 88 students

Date: November 12-14, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Staff Report)

Classroom Situation

Four self-contained class units having a total enrollment of 88 students, with 22 assigned to each class.

Account

Meeting with the teachers revealed their desire to have Activity Module #1 demonstrated. Teachers were informed that the recommended times for each Activity Module were unrealistic since greater time was required to handle the subject adequately. Demonstrations were conducted in each class. Recommendations were made to teachers that Activity Modules be broken down into a series of presentations rather than be made in one offering. The demonstrations of Activity Module #1 averaged one hour and 45 minutes in each class. The suggested length for this activity was 20-40 minutes.

P.N. representative spent his entire time demonstrating to the teachers. Teacher comments included: "The children enjoyed the activity and appeared to learn a lot," "Children outside of the demonstration group were very interested in what was happening," "The activity maintained the children's attention for long periods of time," etc.

There appeared to be an acceptance of materials by the instructors. A meeting was held with the teachers to discuss questions they had concerning any and all phases of administration, interpretation and improvising materials not adequately presented in the Unit. Other topics discussed included weekly reports, phoning P.N. office when problems occur, and forwarding revised booklets for Packet #3 and #4.

Some teachers appeared reluctant to establish groups and suggested they preferred to make presentations to the entire class at the same time. Others felt that groups of 7-10 would be efficient to work with.

Field-Test Report--Eagle Butte Elementary School, Cheyenne River Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Frances Longwood

Students: 22 First-Graders

Date: November 26, 1969

Project NECESSITIES Staff Contact: Tom Cracas

(Teacher Report)

Physical Background

We have set aside a large alcove at the back of our schoolroom for this project. The area has a large bulletin board on which we display our own pictures. At present we have our own homes and opposite these, typical Sioux Indian tepees drawn and colored.

Above these I have posted prints of chiefs of many Indian tribes. The children showed much interest in these because they were familiar with some of the chiefs. They especially were attracted by the very different clothing worn and the fact that only a few used the feathered headdresses.

On the adjoining wall I displayed many pictures depicting the way many tribes lived. They again were most interested in the familiar Sioux.

Above the windows we have large pictures of Indian children illustrating the number concepts with smoke signals, similar to the commercial ones but much larger so all can see from anywhere in the room.

Procedures were followed usually as given; however, I did need to make some changes.

Friday, November 14

The introduction of the packet was completed with the groups as outlined in the guide. There was definite impatience shown by the second group and they suggested we should "take turns" being first.

I felt as I initiated this project how extremely effective it would have been to have begun it on the second week or so of the year as originally planned. This is a difficult time as we are pressed for time and also because of seasonal distractions (pleasant, of course) of Thanksgiving and Christmas.

Monday, November 17

Packets were distributed and pictures on the cover were shown and discussed as to their meanings and the reason they chose them. Manipulation of the fasteners was reviewed, especially bringing out how the different types were usually used. Because they were unfamiliar with the Velcro, I brought a number of samples illustrating how I had used them.

Tuesday, November 18

We played the likeness and difference games showing differences in size, shape, and colors. They enjoyed using Kit A of Developing Numbers Concept. I made enough shapes so each had a set.

I liked P.P. & T., with Packet No. I, as it develops listening power. I can use it in other areas as well.

Wednesday, November 19

In Language we have had Indian poems and songs. We like to Indian dance using the drum. We happen to have a little fellow who has danced in state celebrations. He has helped us very much with our dancing.

I have tried to tie in The Forest Indian and the eastern Indians with study of the Pilgrims. We discussed how the Indians were like the Pilgrims--especially their homes, foods, clothes and problems of survival. Many naturally introduced the Sioux into the discussion, so we compared them also.

Thursday, November 20

The children made a Pilgrim log cabin of Lincoln Logs.

We discussed location and climate and the effect these had upon the way of life of both Pilgrims and Indians.

Friday, November 21

Again we did much talking about Pilgrims and Indians. We especially discussed the sharing and friendly relationship between the two people, why this was so important and necessary then as it is today. We used our room as a parallel. We have four white children and eighteen Indian, and they get along very well.

We planned making our large tepee for our Indian village. Children agreed they'd come early and stay late to do the painting.

Next week looks as if it will be an exciting one.

Mr. Cracas, did I understand that we may have a longer time to complete the project? I hope so, but Mr. Munz thought you wanted it completed by Christmas.

Field-Test Report - Eagle Butte Elementary School, Cheyenne River
Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Frances Longwood

Students: First grade

Date: November 24-December 5

Project NECESSITIES staff contact: Tom Cracas

(Teachers Report)

November 24 and 25

The pretest was completed. I found the pretest time consuming and the questions were rather indefinite, very difficult to get variety into the answers. Could the test be made more objective?

Thanksgiving cut our week short but we had a rather unique party as we served roasted pumpkin and squash seeds and popcorn. They were excited when they heard the squash seeds popping. It was a good science lesson on expansion of heated air. We made headdresses and pilgrim hats for the occasion. A contemporary lunch of ice-cream, cookies and apples was enjoyed.

December 2

Group I covered packet #2, "Animals." Discussion followed the questions in the guide with stronger emphasis upon the Sioux homes and relation to the buffalo.

Group II was occupied with coloring a Christmas picture of an

Indian doll under a Christmas tree.

December 3

Groups were reversed.

December 4

The animals were drawn in the combined groups. This works ve well as it gives us a chance to share new ideas and review the lesson together.

December 5

Homes Discriminations - Activity Module #5. We discussed homes early in the year. Because our overhead was operating I used my large pictures of homes which are exhibited in our Indian Corner. I used much of the material given in the narrative, as usual I emphasized the Sioux.

Again I wish to remind you that the Christmas Spirit is taking precedence over even Project NECESSITIES but, I am trying hard to correlate them whenever possible.

Field-Test Report - Eagle Butte Elementary School, Cheyenne River Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Frances Longwood

Students: First grade

Date: December 8-16

Project NECESSITIES staff contact: Tom Cracas

(Teachers Report)

December 8 - Activity 6

Discussion of homes and reasons for choice of home sites. We deviated from guide to show the likenesses and differences in homes of nomadic peoples of the desert of Arabia and the Sahara as compared to the nomadic Sioux of the prairie. We discussed the town sites on the oasis and the Sioux villages along the rivers, streams and valleys.

December 9 - 10

Both groups drew tents as used by the Arabs. In science we discussed desert animals and how they adjusted to the desert environment. We especially compared the camel and the Indian pony. We brought out the likenesses and differences of people, their foods, clothing, travel and homes.

December 15

Today we had a blizzard, therefore, it was a very good time to compare the prairie blizzard with a desert sandstorm.

December 16 & 17

The overhead projector has been repaired therefore after a general review of the movies the transparencies were shown.

The remainder of the week was taken up with Christmas activities. School recessed for two weeks to reconvene January 5th.

Field-Test Report - Eagle Butte Elementary School, Cheyenne River Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Frances Longwood

Students: First grade

Date: January 5-12, 1970

Project NECESSITIES staff contact: Tom Cracas

(Teacher Report)

Monday - Module 7

We read and discussed "Get the Horses in the Corral", after which we dramatized it. We discussed the round up as they knew it on the cattle ranches that most of these youngsters live on. We discussed branding, cutting out and chasing them in for the cattle sale as well as trucking them in. We made a corral for our village. They colored Indian ponies. The children brought boughs off their Christmas trees to place around the mountains. They call their project "An Indian Village near the Black Hills."

Tuesday

We reviewed "Animal Homes" and I showed the transparencies. These were especially effective as I used them for the study of hibernation and winter homes for science.

Wednesday

We began study of the Eskimo by making comparison of geography of location using a globe we compared with Sioux Indian of South Dakota and the Navajo of the desert. We discussed how their homes will need to be different. I have pictures and stories (written and drawn by Eskimo Children) sent to me from Wrangell, Alaska, which makes it very interesting for the youngsters.

We discussed contemporary homes, the village of the fishing people. It was necessary to explain that the igloo was not a permanent home, but only an emergency home.

We plan to use much of January in the study of the Eskimo with comparisons made with the Indians.

Next week I plan to give the post-test.

Field-Test Report - Eagle Butte Elementary School, Cheyenne River
Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Frances Longwood

Students: Primary

Date: January 12, 1970

Project NECESSITIES staff contact: Tom Cracas

(Teacher Report)

Although the project has not been entirely completed the following is a brief evaluation of the topic. We have decided to do the evaluation on an individual basis because each of us first grade teachers approached it quite differently.

First, I wish to say that it was successful and the children enjoyed it. The contents were interesting although the language was somewhat difficult for our first grade students and needed adaptation.

I feel that if the project had been initiated early in September it would have been more effective as it would not have been in conflict with the holiday projects. Also more excursions could have been taken. Early in the school term the project would lend itself to development of readiness for reading, speech and mathematics.

The format of the guide is good, however, I found it necessary to do a good deal of adjusting and reorganizing to meet the demands of other subjects.

The folders probably were quite expensive but the fasteners were not essential. They could be taught as effectively in practical application.

I felt the material was heavily weighted toward the Southwest Indian, but that is natural. In teaching the project I used the Sioux as the principal tribe.

I would have liked a collection of poems, Indian Art and legends relating to the tribes. Also a bibliography of Indian books, to be used as references could be sent out from the Library at Brigham City.

There were some who felt the project was too time consuming. This could be overcome at least to some extent by correlating Science, Health, Language and Mathematics. I did this especially in the study of hibernation and winter homes. Preparing our homes for winter and comparing them to the Indians, Eskimos and desert people. Foods, clothing, cleanliness and sanitation were good topics.

If I used the project again I would use it as a basis for reading experience charts. They love this. I would use the Indian theme in making master sheets for reading readiness, number concepts and phonics lessons.

I would especially try to find more truly Indian poems, stories and songs.

As a culminating activity a parent visiting day, so they could share their Indian and Eskimo village as well as enact an original play with dances, songs and poems.

Even though I may not use the project again, I feel I gained much personally from it and I can use many of the ideas in another year.

Thank you for asking us to participate in the project.

Field-Test Report - Cheyenne-Eagle Butte Elementary School, Cheyenne River Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Mary Maloney

Students: First grade

Date: November 17 - December 5

Project NECESSITIES staff contact: Tom Cracas

(Teacher Report)

Tuesday, November 17

The remaining groups that you did not work with examined the packets. I feel that the allotted time is certainly not sufficient. Getting the packets ready to work with and putting them away takes a great deal of time. The students were enthused and proud to work with them. They seemed very eager to participate in the discussion.

Wednesday, November 18

The children colored and cut out pictures for the cover. They pasted on the cover. This was done as a class unit. It was a little confusing to some but worked quite well as a class unit.

Thursday & Friday, November 19-20

I divided twenty seven students into groups and played card sort discrimination game both verbal and non-verbal. The children seemed enthused and responded very well.

Monday, December 24

The students divided in groups and the non-verbal part of the pretest was given. It seemed very confusing. This was also very time consuming.

Tuesday & Wednesday, December 25-26

The two days were spent in giving the verbal part of the test. The students didn't seem to understand differences and similarities. They didn't respond as well as would be expected. It seemed tiring to them. I re-worded my questions and it seemed to help. I think this section is to long for these people. While I was working with the different groups the others made Indian head bands. The girls made pilgrim hats. They acted out the first Thanksgiving, and some of the boys Indian danced.

Monday, December 1

We worked on the Animal unit while the last group completed the verbal test. The students did not recognize all the animals.

Tuesday, December 2

We continued work on the animals. Drew pictures of animals. They were most interested in the horse. They wanted to play cowboy and Indians. Much relaxation was shown through out this period.

Wednesday, December 3

We began to work on the Home unit. We discussed different local localities where they lived, e.g., Bear Creek, Green Grass, etc. Each child from these localities described the kinds of home they lived in, water resources, etc.

Thursday, December 4

Pictures of homes were shown to the students. They seemed much more interested in and they were able to show similarities, but it seemed difficult for them to see the differences. Coloring of homes on ditto worksheet was enjoyed.

Friday, December 5

We used primary information on page 31. The children showed difficulty in answering the questions. We discussed where a tree came from. We drew a picture on the board and labeled parts of a tree. Each child made a booklet about a tree, growth, uses, etc. Some booklets proved quite resourceful.

I'm sorry I have been so slow, but it is quite time consuming when you have twenty seven students. I feel that the students are enjoying this unit.

Field-Test Report - Cheyenne-Eagle Butte Elementary School, Cheyenne River Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Justine Sutphen

Students: First grade

Date: December 1 - 18, 1969

Project NECESSITIES staff contact: Tom Cracas

(Teacher Report)

Home Discrimination: Exteriors:

The children did very well. Most of the children gave very good responses to the questions. Where do you live? location, etc.

The children in each group had little or no trouble pointing out similarities and differences of the homes that were shown to them.

The transparencies are very effective and the children really enjoyed them.

We visited the girls dormitory (two girls in our class live there). We discussed the exterior and interiors of this building. I gained a great deal of information. We all enjoyed this. Pupils made excellent comments in comparing differences in the home interiors to their own.

Some questions are difficult and pupils do not understand but, with help they do very well.

We drew our floor plans this week. This was used as an art activity. Pupils did enjoy this. We used the Scott Forrsman Chart, (Things in a Home) as a guide. This helped the pupils that had a difficult time getting started.

I used questions on pages 35 and 37, great responses, very detailed. I received the films. We all saw them, teachers included. I showed my class "A Boy of the Navajo." They enjoyed it very much. We discussed it and made comparisons.

I will need the films again to show later on. I think the pupils should see each film twice.

Field-Test Report - Cheyenne-Eagle Butte Elementary School, Cheyenne River Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Justine Sutphen

Students: First grade

Date: January 5 - 7, 1970

Project NECESSITIES staff contact: Tom Cracas

(Teacher Report)

Home Discrimination: Summary

Monday, January 5

General review.

a. viewed transparencies

b. finished coloring and describing the different characteristics of each drawing.

This did not go over very well. I don't know why. At the end of the period I did not feel the summary was detailed enough. More time is needed.

Tuesday, January 6

We made a bulletin board. Each pupil was asked to contribute any drawings of homes that had been discussed so far. They were asked to describe any differences and display them. When the display was finished the entire group discussed differences, etc.

Responses were wonderful, the discussion lasted about forty-five minutes. Both groups were still going strong. Great show!!!

Wednesday, January 7

No formal class. We discussed any idea thoughts we may have missed on Monday and Tuesday. Now I feel we are ready to go on to the next activity.

We are enjoying working with People, Places and Things.

a. Pupils have gained a vast amount of knowledge about their own way of life and the ways of other people.

b. Interest level still very high (at times so is the confusion level). Pupil responses are generally good.

c. Many things that are in the packets are unfamiliar to the pupils.

d. The time element was a problem at first. I worked this out by taking all the time needed to finish a lesson - usually an extra twenty minutes.

e. Material is too advanced in some areas. Many things were not understood. Maybe its just this group.

f. If additions are to be made - have more about the Sioux.

g. Pupils can now manage the packets quite well - tying and untying. They are having little or no problems .

h. Material provides marvelous activity for pupils, all enjoyable, meaningful and creative.

Field-Test Report - Eagle Butte Elementary School, Cheyenne River Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Mardell Claymore

Students: First grade

Date: November 24 - December 4

Project NECESSITIES staff contact: Tom Cracas

(Teacher Report)

November 24

We explored our packets in groups of six. The interest of the children was high. I encouraged the children to help each other with the lacing, zipping, etc. We had problems with the zippers.

November 25

We decorated our packets today. Again interest was high and the children enjoyed the activity. When the decorating was finished, each child was given a chance to show his portfolio to the class and to tell about the pictures he or she liked best.

November 26

We played the card part discrimination game. We divided into groups of six to play the game. Except for one child the groups were finished quickly and although the children liked the game, most of the children in this group would already know these shapes and to discriminate between them by this time of the year.

December 1

The non-verbal portion of the pre-test was administered. Most did well on this. Some students questioned the first picture of the test because of the tires.

December 2

The verbal section of the pre-test was administered. I felt the questions were very broad and very difficult to evaluate.

December 3

We proceeded with the Animal Discrimination exercise. The animals were easily identified by the children.

Differences and similarities were discussed and also the other animals with which the children were acquainted. No over head projector.

December 4

Animal pictures were colored.

Field-Test Report - Eagle Butte Elementary School, Cheyenne River Reservation, Cheyenne River, South Dakota

Teacher: Mrs. Mardell Claymore

Students: Primary

Date: January 5 - 12

Project NECESSITIES staff contact: Tom Cracas

(Teacher Report)

January 5

We discussed different types of homes such as trailers, apartments, log houses, etc. I then drew a floor plan on the blackboard of my home and explained as I made it. Most of the children had been in my home, which is a trailer. The children were then given paper and pencils with which to draw their floor plans. When this was finished we made clay models of the furnishings in their homes. The floor plan was difficult for some to understand but they all enjoyed the project very much.

January 6

Each child described his floor plan to the class and we discussed the differences in them.

January 7

The drawings of the homes were colored and the transparencies were shown and discussed again. Several of the children indicated that they thought it would be nice to live in a log house because their grandparents did.

January 8

We discussed why some types of homes serve purposes in some areas which would not be true in other areas. We also discussed important things which we must consider when we are planning to build homes.

Some of the things which the children thought were important were:

1. You would need a place to keep cows.
2. You would need a warm, strong house.

January 9

We discussed summer and winter homes and drew two different kinds of summer homes.

We skipped Activity 7.

January 12

We discussed animal homes and why animals build certain types of homes. I showed pictures of some animals and their homes, which we discussed. The children were very interested in this lesson. They told of some animal homes which they had seen being made. One child told about the beaver's home. We discussed different kinds of nests and how they are made.

The children drew pictures of two animal summer homes and we put them up.

Summary of my experiences with the unit:

Because of the time which we received the unit, I have not done it justice nor it us. We could have done more if we had had it at the very beginning of the year.

Another drawback to this unit is that we did not have materials readily available with which to work.

I feel that the unit is highly motivating in places but it is very time consuming in an over-crowded classroom. This is because of the fact that many of the projects should be done with small groups.

Field-Test Report - Fort Yates School District No. 4
Fort Yates, North Dakota

Teacher: Miss Carolyn Rettinger

Students: First grade

Date: January 14, 1970

Project NECESSITIES staff contact: Neen Schwartz

(Teacher Report)

First Day

For the first day we explored the packet. They thoroughly enjoyed examining it. Many times the comment, "Oh look what I have found," was heard. They were pleased with themselves that they could recognize the shapes. Some of the fasteners were familiar, like the zipper and button but,the others were not. TROUBLES FOR THE DAY:

1. All of the pupils did not know how to manipulate the majority of the fasteners.
2. We went over the time limit that was scheduled.

Second Day

The second day was spent in coloring the pictures. They laughed at the cartoon drawn figures. The pupils did not recognize the adobe home. We worked one-half of an hour. No problems during the period.

Third Day

This day was spent in coloring, cutting and pasting. Class period was twenty-five minutes. There were still a couple of pupils who did not paste any pictures on the packet. They were allowed to finish it at another time.

Fourth Day

The fourth day was spent in comparing the packets. So far I have taken one extra day than what was recommended.

Fifth Day

Today was spent doing the card discrimination game. We played the game a little different. Instead of having one pupil sort through all their cards at one time they took turns. One card was turned over, if it was correct he placed it on his strip, if it did not it was placed in the middle of the table. After all the cards were turned, they took turns turning up the ones in the middle.

Three objectives were reached this way:

1. They practiced taking turns, which they do not always do.
2. They identified each others names, they identified shapes.
3. They played it like a card game. So it was thoroughly enjoyed.

The class was divided into three groups to play it.

AFTERWORD

At the time this report was written most schools have completed field-testing. Available from Tuba City are test results from the verbal portions of the pre- and post-tests, which are shown on the next page to indicate the kind of data available to the classroom teacher.

Students were read questions at the beginning of sub-unit and at its completion. Teachers were asked to tally all individual responses according to correct and incorrect answers so that a comparison not only of right to wrong answers might be ascertained, but also a measure of increased or decreased use of English.

Forty-eight students participated in the tests. These students were divided into six groups. Approximately eight students comprised a group. Groups were designated by the colors listed below.

	Pre-test Verbal Responses			Post-test Verbal Responses		
Group	Incorrect	Correct	Total	Incorrect	Correct	Total
Red	11	3	14	6	23	29
Pink	13	8	21	9	28	37
Orange	28	9	37	8	23	31
Yellow	24	2	26	0	26	26
Green	6	0	6	2	23	25
Blue	0	0	0	2	0	2

NEW MATERIALS

The sequence in which sub-units are to be developed was suggested in the Unit Overview of "People, Places and Things". The order is as follows:

1. Homes
2. Homes and Schools
3. Geographical Relations
4. Animals on the Land
5. Economics, Technology and the Land

The sub-units would represent approximately thirty-six weeks of material.

Materials developed for "Homes" were constructed to expose students gradually to concepts which would be treated extensively in"Homes and Schools," as well as two other sub-units. Each sub unit would be dependent upon preceding materials to provide concept foundations as well as to give depth to its major subject. The sub-unit currently being developed is "Homes and Schools." The relationship between "Homes" and the new material is clear.

Samples of new materials developed include:

1. A draft outline of classroom activity for "Homes and Schools."
2. Activity modules Four and Six from the aforementioned units. These modules are subject to change.

3. A series of six picture story books, designed to be read aloud by a teacher as students follow illustrations.
    a. Stories, "Life along the Amazon River," and "Water in the Air," written for "Geographic Relationships."

    b. The Blackfoot legend of creation was illustrated, to be used in conjunction with "Animals, Climate and Terrain" which was created for use in "Animals on the Land."

    c. "The Village of Shageluk" was written to be used with "The Village of Egegik" as a comparative study of technology for the sub-unit "Economics, Technology and the Land."

project NECESSITIES

UNIT TITLE: Home and School
SUB-UNIT TITLE: Homes and Schools
LEVEL: Primary
SUGGESTED LENGTH:

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrat detail page r
1.		Discriminating Similarities Use as a point of reference personal articles and objects brought by children for "Show and Tell" to demonstrate that properties which appear different possess attributes which are similar in texture, shape, size, material, design and/or function. Sensory discrimination is also used to distinguish attributes.	"Show and Tell" Items children provide	none	
2.		Touring School Plant Demonstrate experientially that certain activities which occur at home also occur at school (both have places to cook and smell of food cooking, both have places where fuel is burned to produce heat, etc.). Emphasized is the use of senses (tactile, sound, smell, size, shape, material, design, and function).	Student's notebook Drawing paper Crayons or pencils	none	
3.		Discussion of Home and School Interiors 1. Discriminating sounds, smells, activities, design, etc. associated with the function of a particular annex or section of the school plant. 2. Describe facilities, smells, activities, materials, etc., which exist at both home and school.		none	

project NECESSITIES

UNIT TITLE: Home and School
LEVEL: Primary

SUB-UNIT TITLE: Homes and Schools
SUGGESTED LENGTH:

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrative detail on page no.
4.		Pictorial Comparison of the Exteriors of Homes and Schools Verbalize similarities of fixtures (windows, doors, etc.), building materials, shapes, landscape, and surrounding terrain from pictures representative of Homes and Schools.	Transparencies from packet #3 entitled HOMES Transparencies from packet #8 entitled SCHOOLS WE HAVE NOT SEEN Blackboard, chalk, eraser.	OH	
5.		Field Trip to Neighboring Homes and Schools 1. Discriminating similarities and differences between Home and School. 2. Look at and discuss exterior and interior features of Homes and School. 3. To carry out verbal discussions during field trips fostering simultaneous discrimination.	Transportation if required	none	
6.		Field Trip: Summary Discussion 1. Foster skills in discerning similarities and differences as separate processes. 2. Produce a climate which encourages students to verbalize ways in which school and home environment are similar and are different.	Packet #7 - Drawing of three elementary schools (transparencies of the above drawings) Chalk, erasers, and blackboard space	OH	

project NECESSITIES

UNIT TITLE: Home and School
LEVEL: Primary

SUB-UNIT TITLE: Homes and Schools
SUGGESTED LENGTH:

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narra detail page
7.		Construct Models 1. Construct (paper, clay or sand) a floor plan of the classroom and one of a neighboring classroom to dramatize differences. 2. Construct floor plan models of students' homes and their classroom which dramatize similarities.	1. Material from which models of classrooms and homes may be constructed. May be of sand, clay, or paper cut-outs from drawings, popsicle sticks, etc. Sufficient materials must be provided for each child.		
7a.		Role Identification 1. Distinguish and identify the roles of school staff figures (principal, teacher, teacher's aide, custodian, cook, and the student himself). 2. Distinguish and identify the roles of family members, (grandparents, parents, uncles, aunts, siblings, and the child himself). 3. Distinguish roles according to relationships, activities and authority.		none	
7b.		Role Identification (Cont'd.) 4. Drawing analogies regarding similarities and differences between the roles of school personnel, the family group, and the child himself. 5. Comparing similarities and differences between activities of home and school.		none	

project NECESSITIES

UNIT TITLE: Home and School
LEVEL: Primary

SUB-UNIT TITLE: Homes and Schools
SUGGESTED LENGTH:

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrat detail page
7.	—	Construct Models 1. Construct (paper, clay or sand) a floor plan of the classroom and one of a neighboring classroom to dramatize differences. 2. Construct floor plan models of students' homes and their classroom which dramatize similarities.	1. Material from which models of classrooms and homes may be constructed. May be of sand, clay, or paper cut-outs from drawings, popsicle sticks, etc. Sufficient materials must be provided for each child.	—	—
7a.	—	Role Identification 1. Distinguish and identify the roles of school staff figures (principal, teacher, teacher's aide, custodian, cook, and the student himself). 2. Distinguish and identify the roles of family members, (grandparents, parents, uncles, aunts, siblings, and the child himself). 3. Distinguish roles according to relationships, activities and authority.		none	—
7b.	—	Role Identification (Cont'd.) 4. Drawing analogies regarding similarities and differences between the roles of school personnel, the family group, and the child himself. 5. Comparing similarities and differences between activities of home and school.		none	—

project NECESSITIES

UNIT TITLE: Home and School

SUB-UNIT TITLE: Homes and Schools

LEVEL: Primary

SUGGESTED LENGTH: ____

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narra detail page
8.	____	Assemble Prefabricated Building Frame 1. Illustrate design, facilities, structural material and floor plan and finishing for both home and school. 2. Utilize the structure in role-playing scene for local environment, Japan and the Alps.	Prefabricated building frame	none	____
9.	____	Role Play Dramatization created by student which depicts the events of one day of home and school life. a. create plot b. set up locations for scenes c. choose role	Assemble prefabricated building frame having appropriate cultural design	____	____
10a.	____	Homes and Schools of Other Lands Film: "Children of Japan" (11 minutes) Discussion of film regarding the similarities and differences between the homes and schools of children of the Alps and themselves.	Film: "Children of Japan" available from: Bureau Wide Film Service P. O. Box 66 Brigham City, Utah 84302	16 mm	____

UNIT TITLE: Home and School.

LEVEL: Primary

SUB-UNIT TITLE: Homes and Schools

SUGGESTED LENGTH:

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail or page no.
10b.		Homes and Schools of Other Lands (Cont'd.) Film: "Children of the Alps" (13 minutes) Discussion of film with regard to the similarities and differences between the homes and schools of children of the Alps and themselves.	Film: "Children of the Alps" available from: BureauWide Film Service P. O. Box 66 Brigham City, Utah 84302	16 mm	
10c.		Role Play of Activities which Center about Children of the Alps. a. create plot b. set up location for scene c. design prefabricated house appropriate to the culture d. choose roles	Any item such as a walking stick, which may serve to help the student identify himself as a child of the Alps Assembled prefabricated building frame having appropriate cultural design	none	
10d.		Role Play of Activities which Center about Children of Japan a. create plot b. set up location for scene c. design prefabricated house appropriate to the culture d. choose roles	Once again the use of an item or article of clothing is used to help the student identify himself as a child of Japan.	none	

project NECESSITIES

UNIT TITLE: Home and School

LEVEL: Primary

SUB-UNIT TITLE: Homes and Schools

SUGGESTED LENGTH:

DRAFT OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narra detail page
10c.		Draw pictures which dramatize the similarities and differences between the worlds of Alpine and Japanese children and the students.	1. Drawing paper 2. Crayons or paint brushes and water colors	none	
11.		Administer post-test for similarities only	1. Test form 2. Pencils	none	

Activity Module #2

The teacher began the class by telling the students that for part of the lesson they would be taking a walking tour around the school. She told the students that the purpose of the lesson was to familiarize them with, or remind them of, how their school looked, for they were going to be asked to discuss and draw a picture of the school. She encouraged them to remember at least three things they saw on the tour so that they could include these aspects in their drawing. After giving these directions, she led her students through the halls and around the grounds. As they walked, the teacher pointed out features that would be essential to the description of the school, e.g., "Listen to the sound of the typewriter" (bell, children in the playground, dishes in the cafeteria); "Feel the stone on the building wall" (the wood on the door, the iron railing"; "See the blue color on our windows" (the pretty pictures on the wall, the signs in the halls". She encouraged the children to walk close together so that all of them were able to hear each others' comments. After returning to the classroom, the teacher quickly settled the students. She began by reminding the students of their instructions before the tour; she asked them to draw three things that they saw so that they would not forget them.

"Henry, what is one thing that you saw?"

"A swing."

As each student answered the teacher recorded on the blackboard the vocabulary words she felt were appropriate for the level of the class.

She asked the students to copy each word in the small notebook that had been provided them, and sketch a small picture beside the word. After ten to twelve words were on the board, the teacher asked the students to close their notebooks, put down their pencils, and give her full attention. She used the vocabulary words on the board as starting points for more comprehensive questions about the description of the school, e.g.,

"Besides the swing in the playground, what else is there?"

"What else is our school made of besides stone walls?"

The discussion was geared toward the following questions:

1. What is the shape of the school? More than one?
2. How large or small is it in comparison to other buildings in town?
3. What parts of the school have colors?
4. What are the names of the colors?
5. Are there different buildings to our school?
6. What are the names of the buildings?
7. How do the activities of each building differ?
8. Describe the land and area that surrounds our school. Are we located on a street? field? plain? mountains? valley?

As students reacted to questions the teacher sought greater depths and detail to answers. "Who can name the different parts of our school?" One student replied, "the playground," another mentioned "the lunchroom," still another volunteered, "the principal's office." The teacher encouraged the child to recall as much detail as possible about each area named. What are some things you like to use on the playground? Responses included, slippery slides, see-saws, monkey bars, sand boxes, etc. Other questions asked were:

1. What games do you like to play on the playgrounds?
2. Name some games you play in class.
3. What is the difference between the games you play in class and the games played outside?
4. What are some of the noises you hear in the lunch room?
5. What is the difference between the noises you hear on the playground and the noises in the lunch room?
6. What are some noises you hear in the principal's office that are different from noises we hear in class?
7. What makes the lunch room smell different?
8. Name some lunch room sounds that are different from the classroom sounds.
9. Why do different places in the school have different sounds, smells, sizes, and shapes?
10. What sounds do you like best?
11. What smells do you like best?
12. What do you like best about school?
13. What do you like best about home?
14. What do you do at home that you don't do in school?
15. What do you do at school that you don't do at home?
16. What do you do at home that you do at school?

17. How are home and school different?

18. How are home and school alike?

The teacher then asked her students to step to the window and name things they saw. The children were excited. Each was naming objects and competing with the other in seeking the teacher's praise and attention. Responses included, "grass, trees, fences, sidewalks, roads, houses, cars, water fountains," etc. The teacher listed several of the objects named on the blackboard. She then asked the students to return to their seats, close their eyes and think of what it looked like around their home. As the students were involved in the recall process the teacher asked them to raise their hands when they were ready to describe their home and surroundings.

As each student named features around his home, the teacher listed them on the blackboard. A list describing the school's surroundings was also compiled.

There were two columns of features listed. One side was entitled "Surroundings of School". The other was, "Surroundings of Home". The latter had the name of the child preceding the description of his home.

EXAMPLE:

Surroundings of School	Surroundings of Home
fence	Henry
water fountain	corral
grass	pick-up truck
trees	sheep

Surroundings of School (Cont.)

- sidewalk
- street
- houses
- playground
- school bus
- boys' dormitory

Surroundings of Home (Cont.)

- horse
- sage brush

- Mary
  - weaving loom
  - Pueblos of neighbors
  - corn field
  - mesa
- John
  - old sod home
  - horses
  - cattle
  - grassy plains
  - Black Hills
- JoAnn
  - The Yukon River
  - food cache
  - willow, pine
  - mountains
  - air strip
  - cabins of neighbors
  - fish smoking racks
  - sled dogs
- Sam
  - village homes
  - ocean
  - rocky beach, sea
  - gulls
  - pier
  - fishing boats
  - tundra
  - shrub pine
  - snow-mobiles
  - hoist trucks

At this point, the instructor began questioning students about how the school's surroundings were different from those of the home, and how the surroundings were the same. As the students volunteered answers to questions, the teacher encouraged generalizations by asking the following:

> What do people here use to travel from one place to another?

Did Sam tell us how people in his village travel?

Are snow-mobiles and boats ways that people can travel?

Are cars used for travel?

The teacher derived explanations from children that even though snow-mobiles, boats, horses and cars don't look the same, they do the same thing, and are used by people to go from one place to another. They go places fast and can carry heavy loads. The teacher then posed the question:

What did Sam say his family used to travel in near home?

After the students replied, they were referred to the first column which listed features surrounding the school.

What do people use to travel around the school?

The children's responses included items previously unlisted such as pick-ups, motorcycles, airplanes, boats, etc. The students' responses encouraged the teacher to list the additional items to the first column. She then asked questions of students in the group who had not contributed to the discussion: "In what ways are the surroundings of Sam's house and our school alike?" The children answered, "They have things that people ride on." After enthusiastically praising the child's response, the teacher asked, "In what way are a snow-mobile and car alike?" After a short period of silence one student said, "Because they go," another mentioned the fact that "People ride on them," still another said, "They make noise when they go."

In order to maintain the motivation of these less responsive students the teacher continued the same line of questioning.

> What causes the noise that cars and snow-mobiles make?
>
> What is the difference between a snow-mobile and a car?
>
> Where do cars drive?
>
> Which is stronger?
>
> Which would you like to ride in if you were cold and wet? Why?
>
> Why do you have to dress differently in a car than you do on a snow-mobile?

The teacher continued to expand the relationship between home and school by having students elaborate on the concept that things may perform like functions but may be very different in size, shape, design and materials. Some student responses included statements that schools have walls and so do homes; that walls protects us from the cold; that walls hold up the roof; that walls are used to hang things on; that walls help to keep out noises; that walls in a home are not as fat as walls in a school; that walls in schools are higher and have a different color from walls at home. The discussion continued and eventually included boundary lines such as fences, reasons why grass is planted around homes and schools, advantages and disadvantages of paved streets and dirt roads. At this point the overhead projector which had been previously positioned was turned on and transparencies from Packet #3 entitled Homes and Packet #8 entitled Schools We Have Not Seen were used to summarize similarities and differences between exteriors of Homes and Schools.

Activity Module #6

The activity began when students of group A took their places in the circle and were handed Packet #7. They were read the title of the packet and given an opportunity to explore its contents.

The teacher announced that they were going to play a game and that the group would be divided into two teams. The teacher divided the group in half, setting opposing teams on her right and left side. She was positioned within easy reach of the blackboard, chalk and eraser. A line was drawn on the blackboard. The responses of team #1 were recorded by the teacher on the left side. Team #2 answers were written on the right. She explained that the object of the game was to look at the drawings of schools in their packets and name as many features as they saw. They were told that one drawing would be viewed at a time and each drawing would have its features listed separately. The team which named the most features were the winners.

The students were given two minutes to respond to each drawing. As they called out features such as a flag pole, sidewalk, and windows the teacher recorded each response on the appropriate side of the blackboard. At the conclusion the winners were announced and a list of features for each drawing was obtained. The instructor asked the losing team, "Would you like another chance to win?" The next game was played differently. The teacher held up two drawings of schools. Team #1 called out similarities. Team #2 was to verbalize differences. Both teams would receive one demerit for indiscriminate responses (calling out similarities instead of differences or vice versa). At the conclusion the students (with the help of the instructor) counted up the total demerits from each side and subtracted them from the total number of responses in determining the winning team.

During the game there was an occasional lull in naming features. On such occasions the instructor stimulated responses by asking questions such as:

> Which two look most alike?
> How are the alike?
> Which schools look most different?
> How are they different?

Students were then asked to compare features of their home with the illustrated drawings of school. Students were encouraged to generalize interior features basic to most schools such as desks, chairs, blackboards, classrooms, lunch rooms, rest rooms, drinking facilities, etc.

Responses included statements such as:

> "We don't have a flag pole near our home."

"Our home has a door and school has a door."

"The school is made of rocks and my home is made of rock."

"My home has a wooden floor, the school has a carpet."

"There is a place to cook and eat at both places."

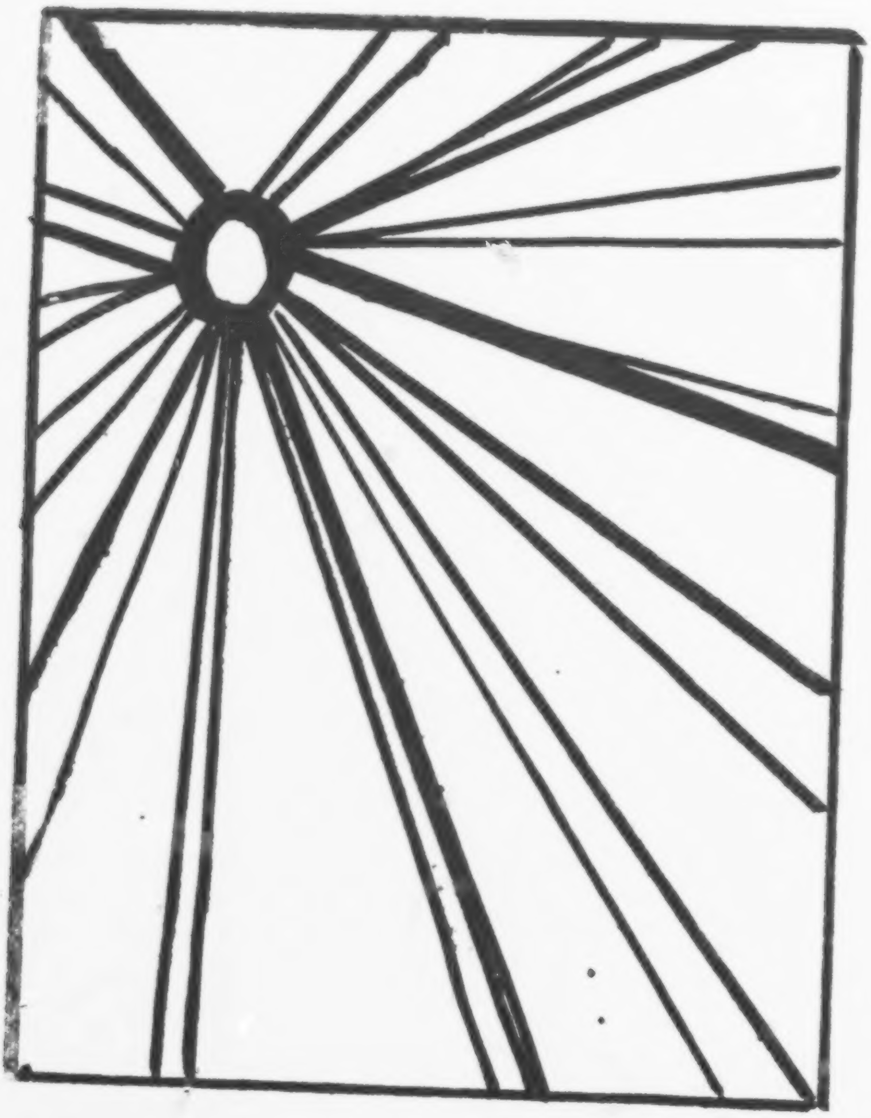
"We have trees around our houses and so does the school."

"There are chairs at home and in school."

"There are mountains at home but not at school."

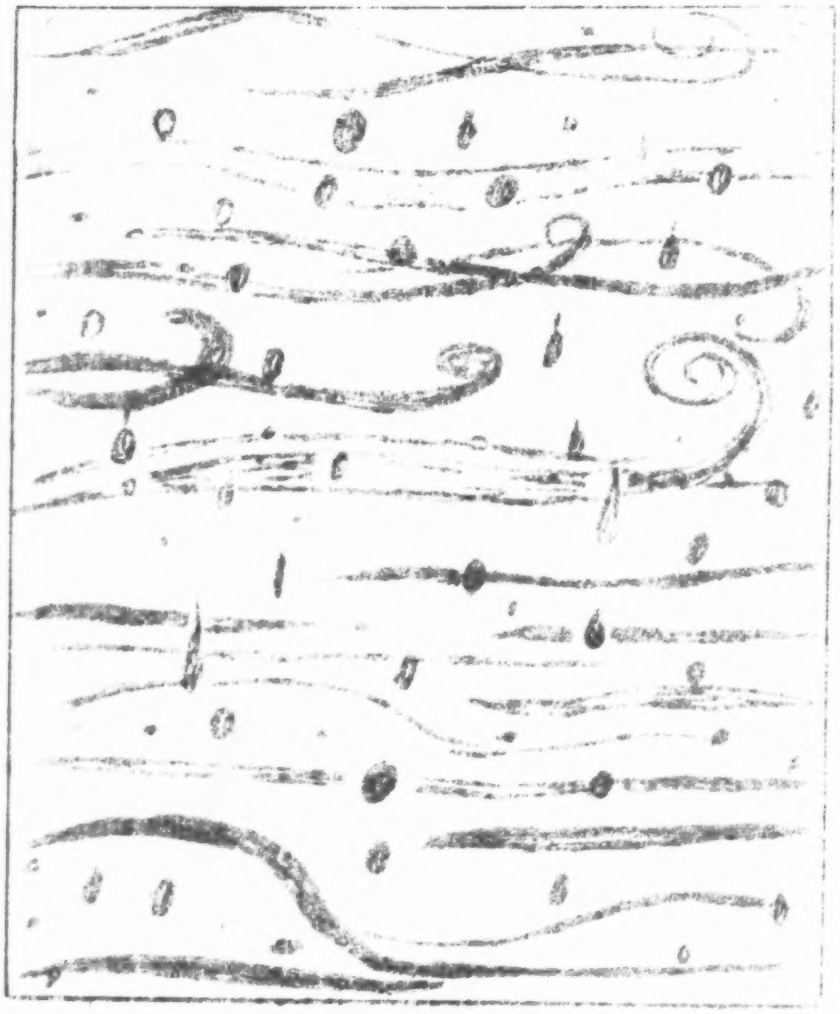
Students were informed that the next activity would allow them to construct models of their home and school.

WATER IN THE AIR

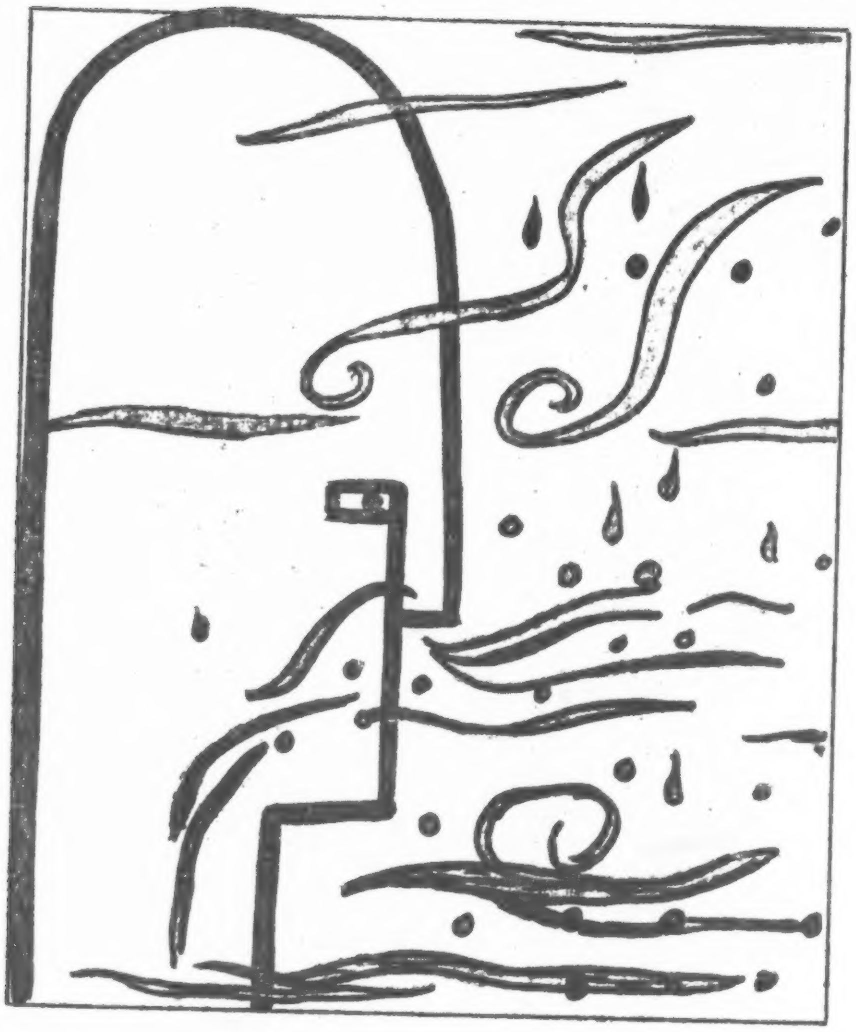


The Amazon has a lot of rain and it is hot.

The Amazon has a humid climate. Humidity is moisture or water in the air.

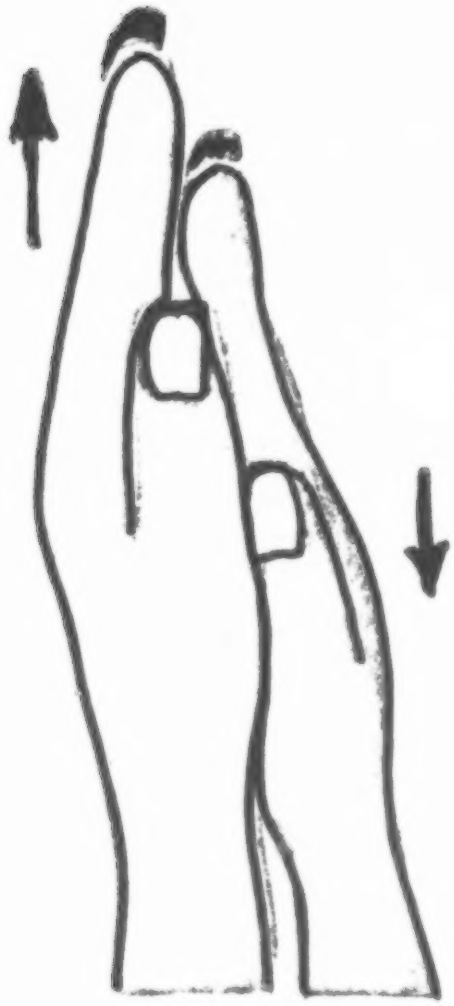


Clouds in the sky have water in them.

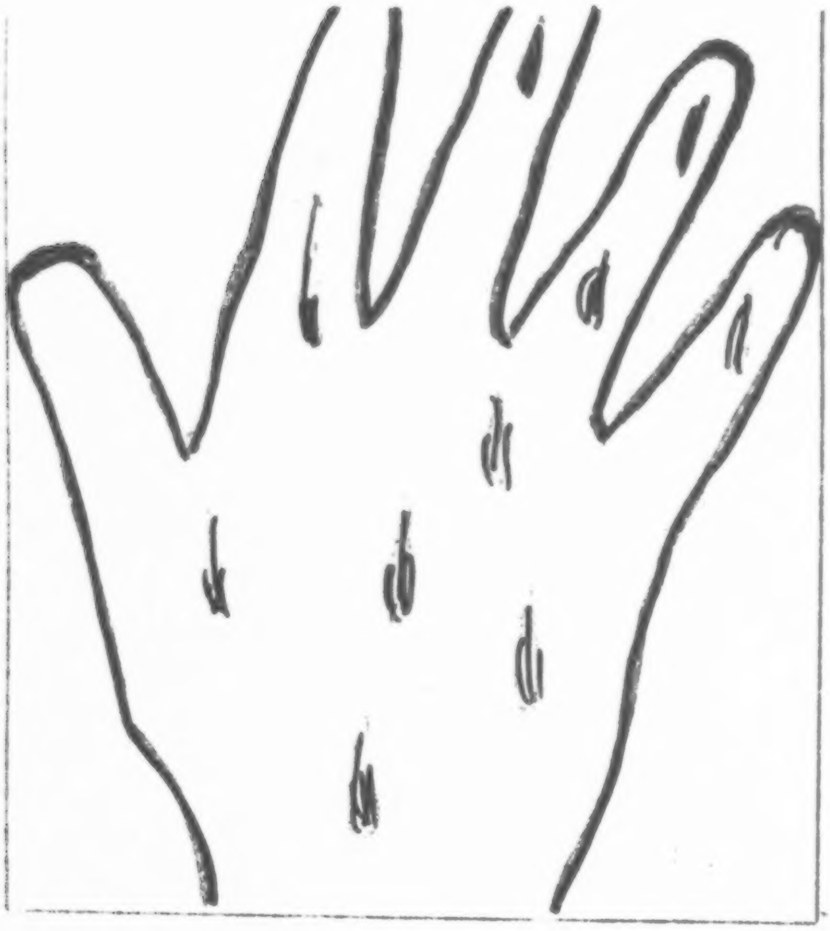


The air about us has water in it. Cup your hands and place them over your mouth.

Now take a deep breath and blow hard into your hands.

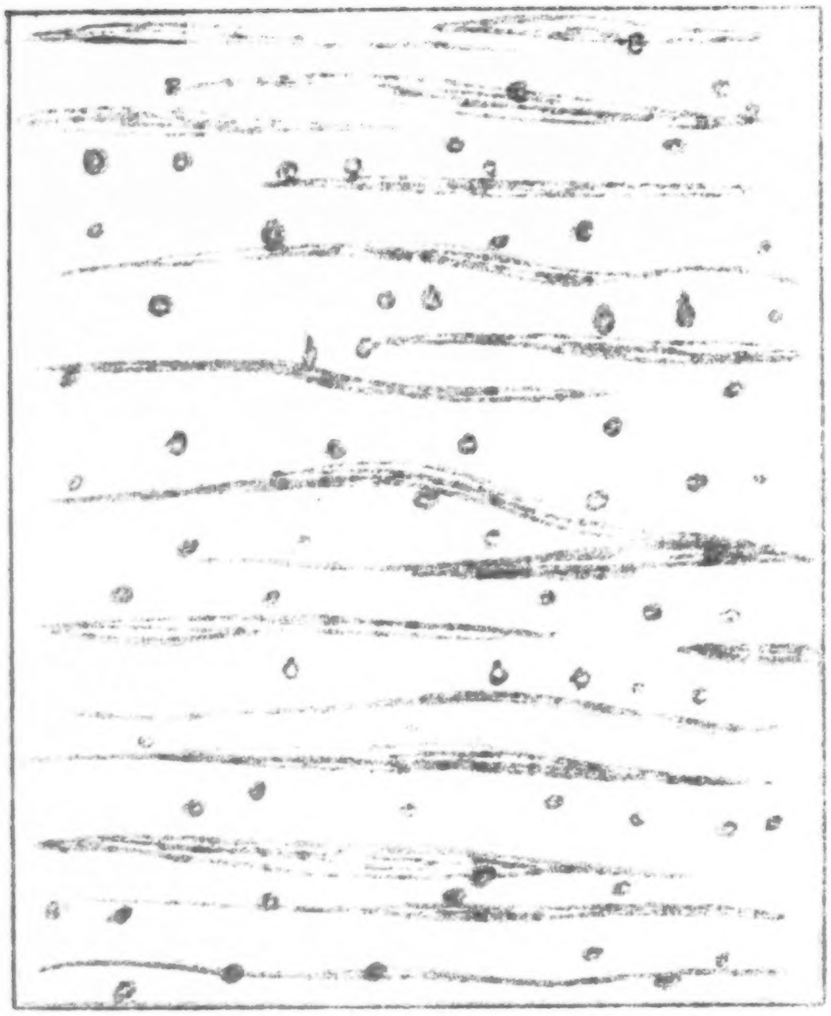


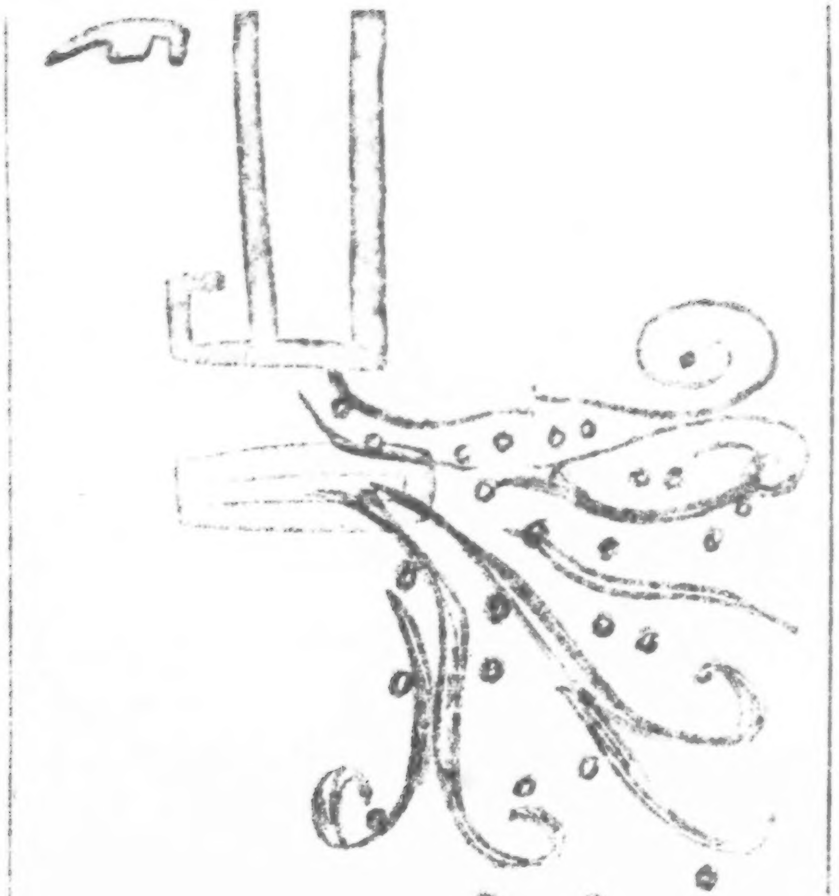
Quickly rub your hands together.



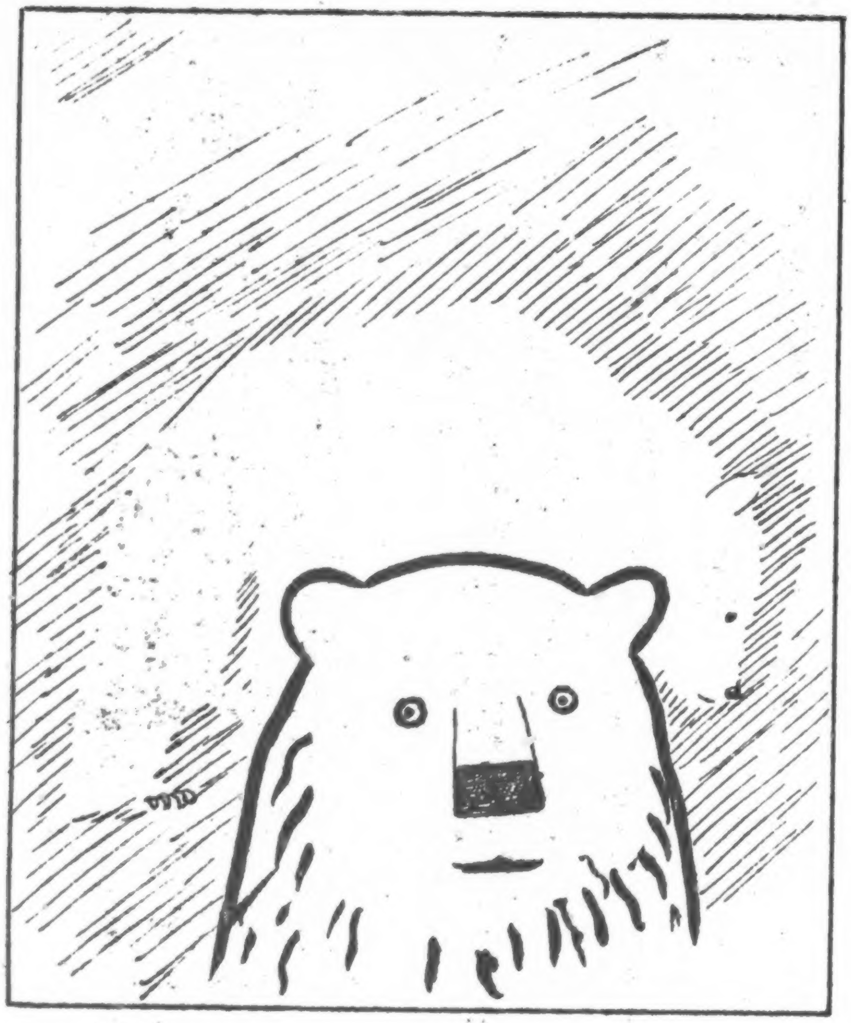
Are your hands a little wet?

The wet you feel is humidity or water suspended in the air.



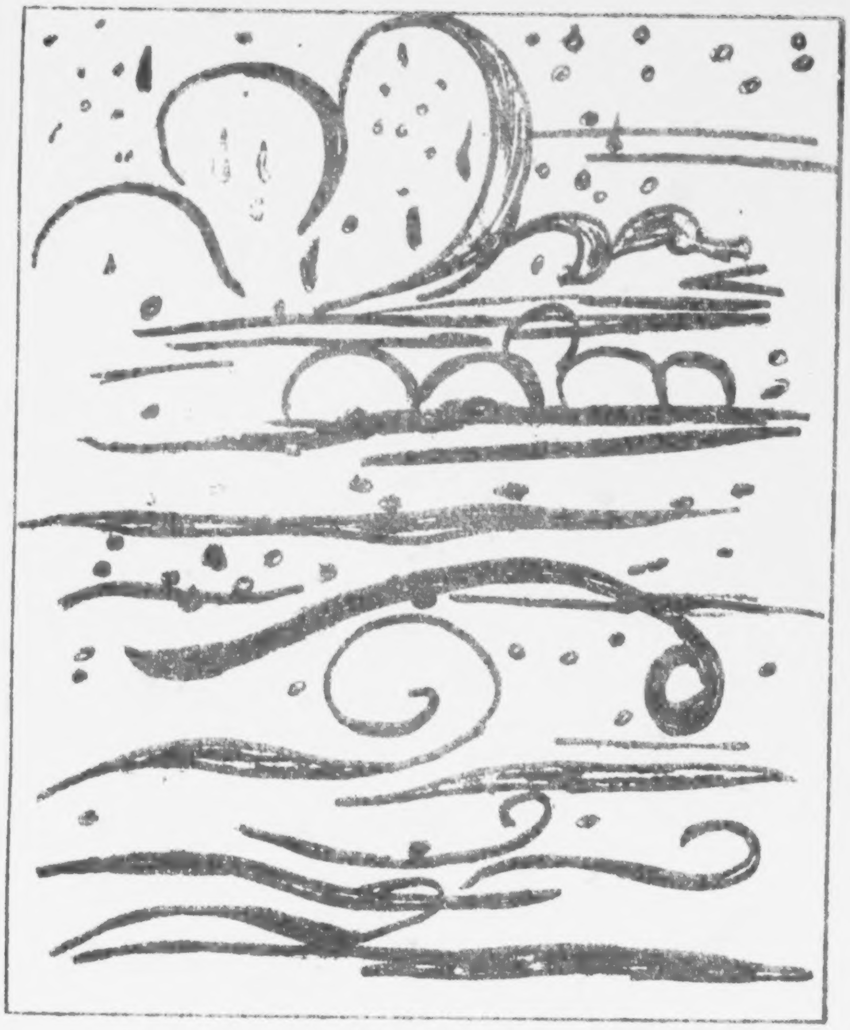


When it is cold ou
breath may be seen
as water vapor.



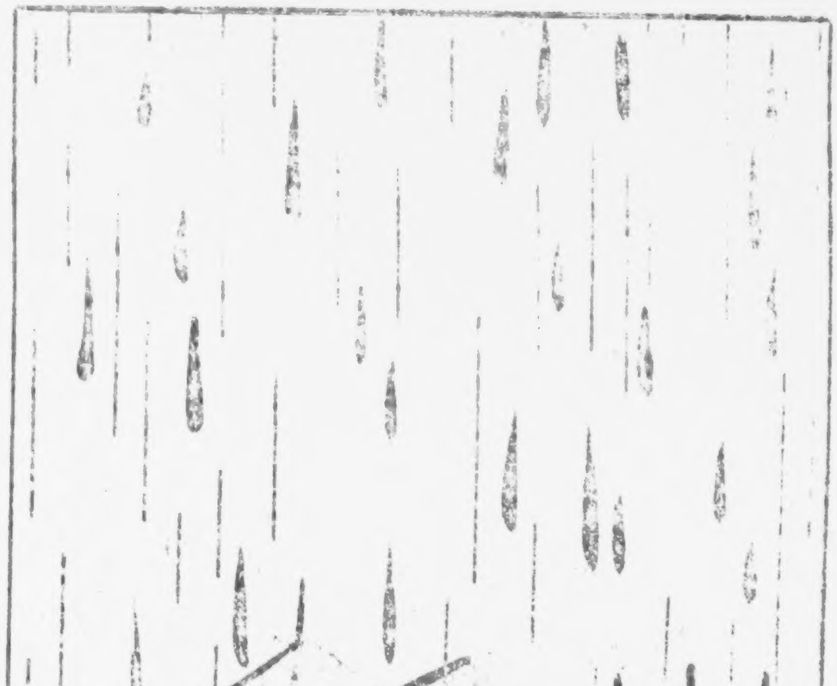
Water in the air also
makes fog
When fog is heavy
we cannot see far.

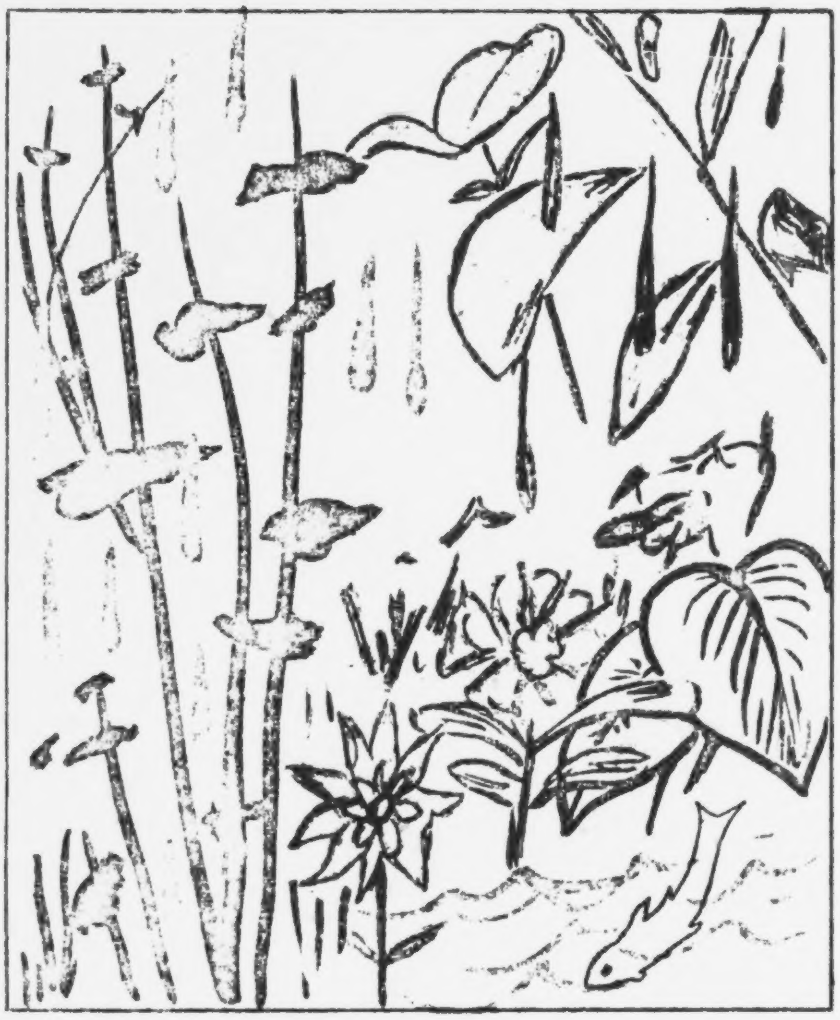
Fog is a cloud that is
close to the ground.



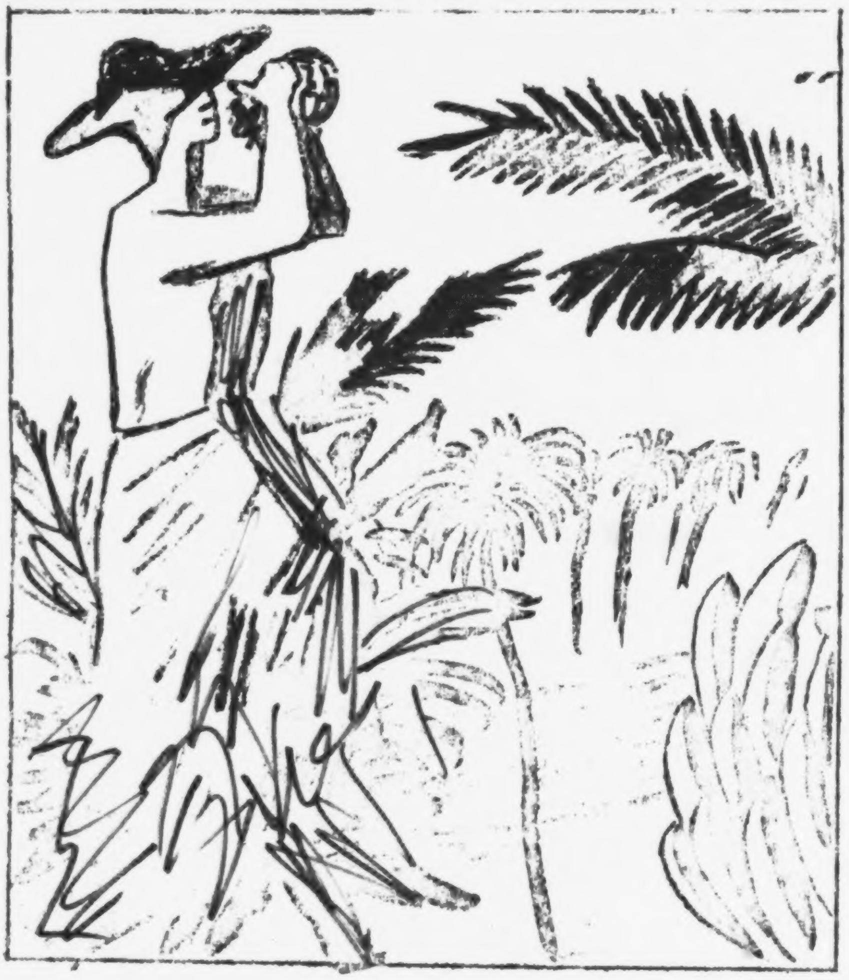
When much moisture fills the air, dark and heavy clouds form.

When this happens it rains.





If we had as much rainfall as the Amazon, the face of the land (terrain) would be changed.

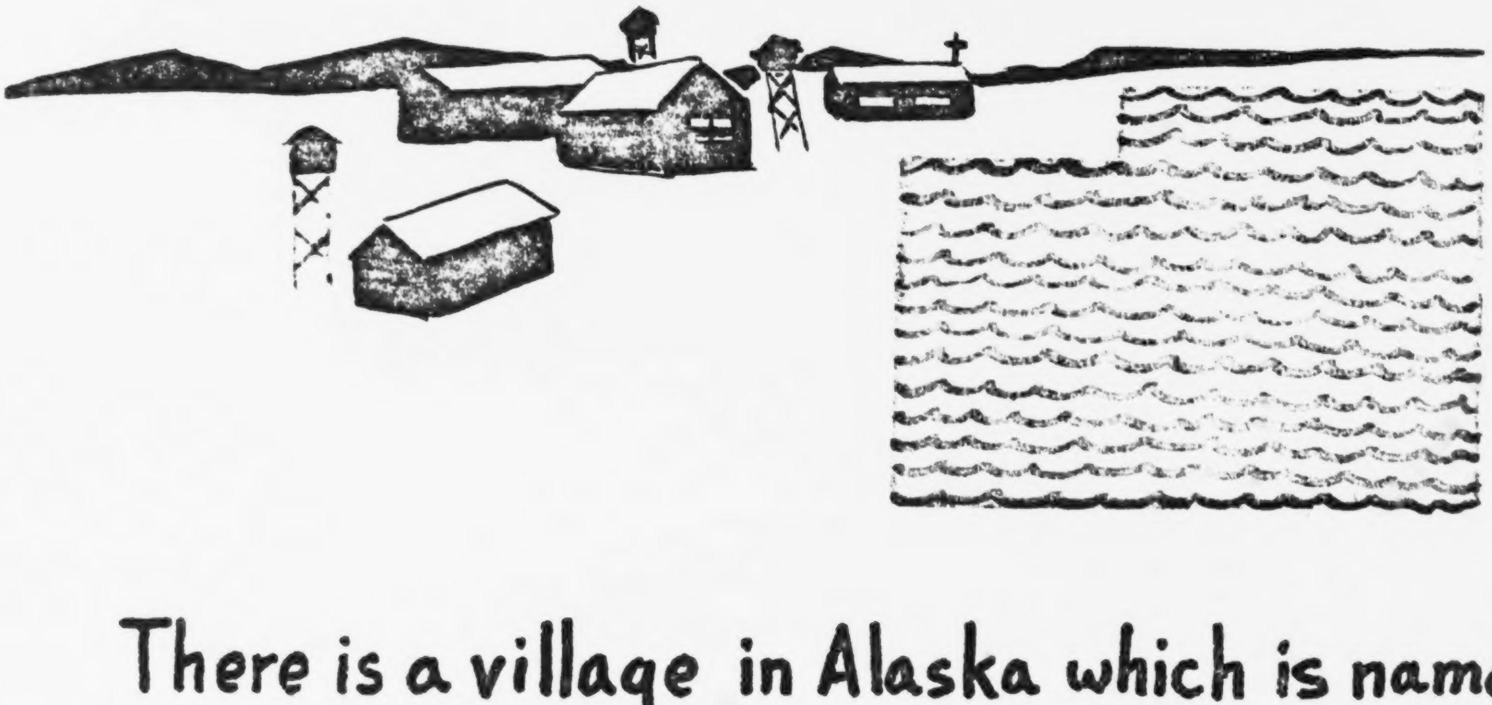


We would eat different foods and wear different clothes and live different lives.

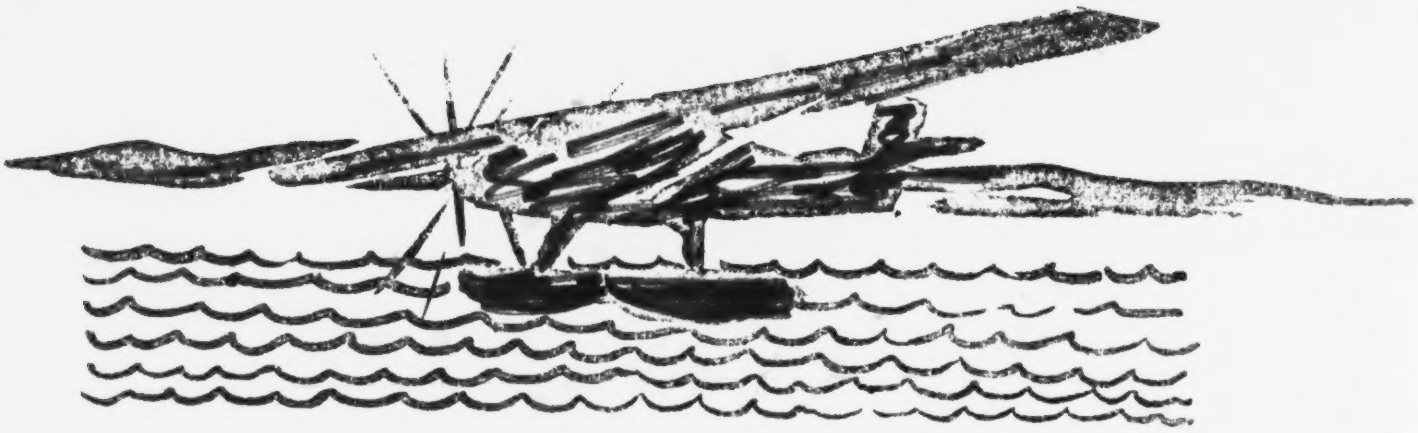
Draw how the land around home looks now.

Draw how the land around home would look if we had as much rain fall as the Amazon.

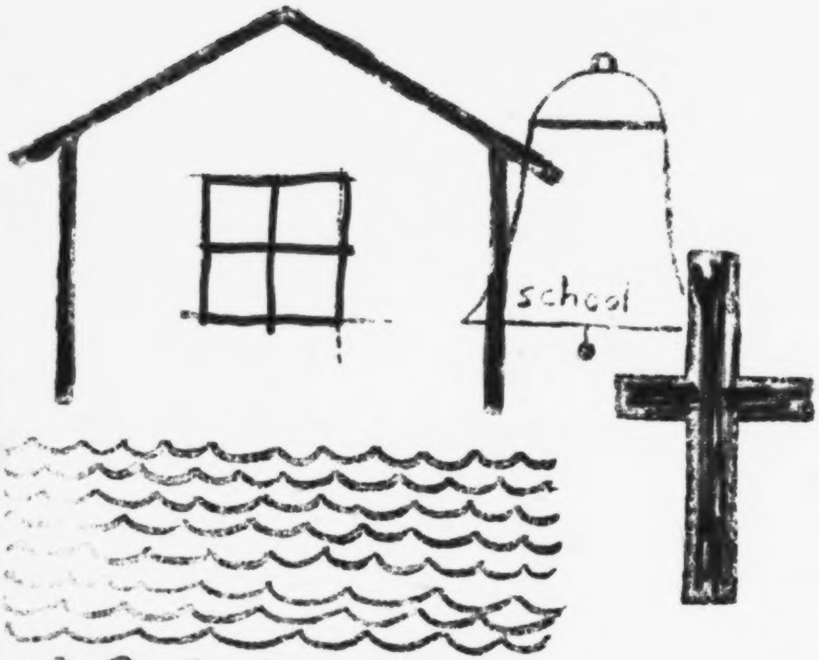
THE VILLAGE OF SHAGELUK



There is a village in Alaska which is named Shageluk. This village is about 300 miles from any road.

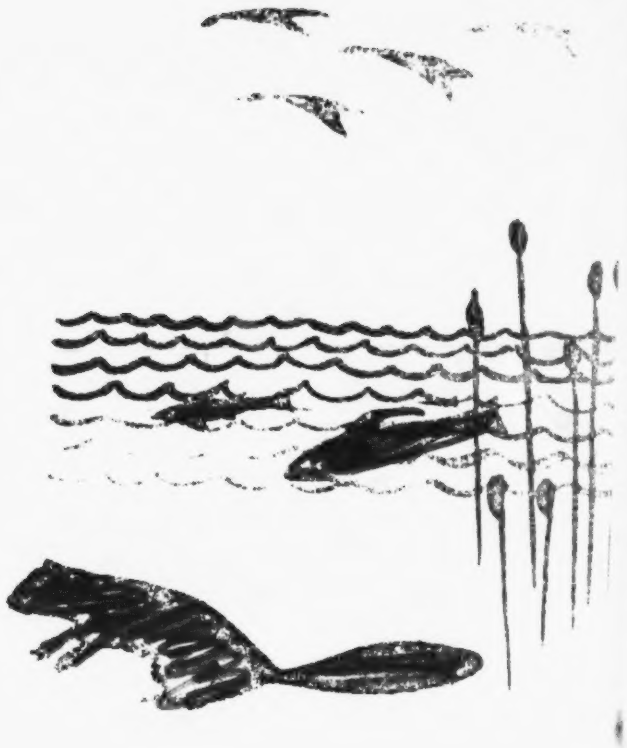


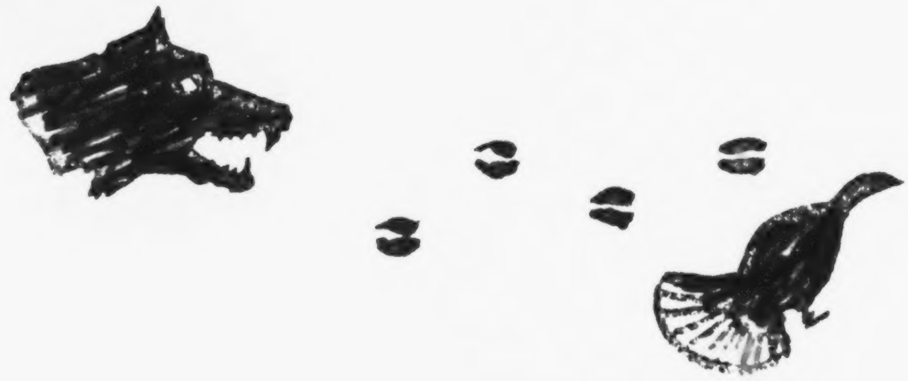
People receive mail and supplies by boat or airplane.



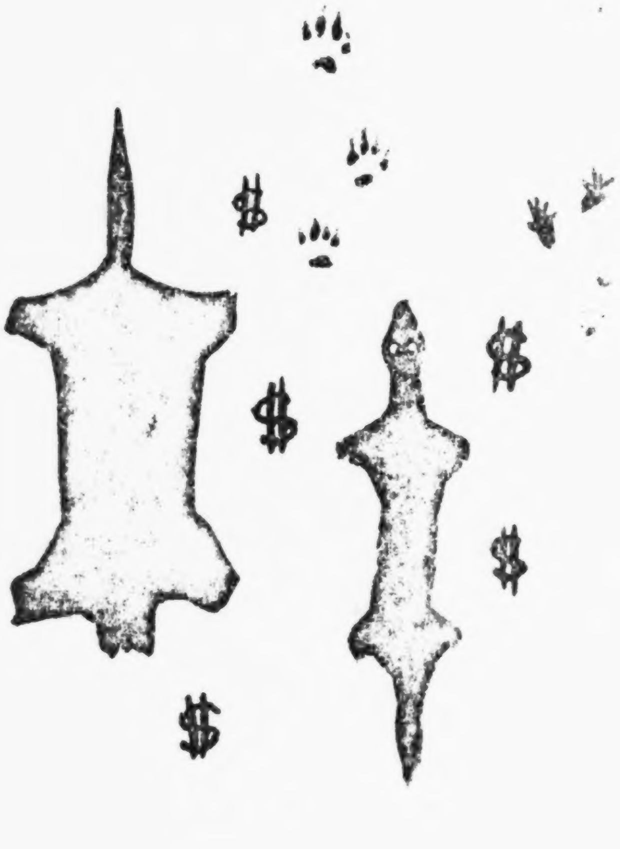
In the village are the homes of people, a school, and the place where the white missionary and his wife live.

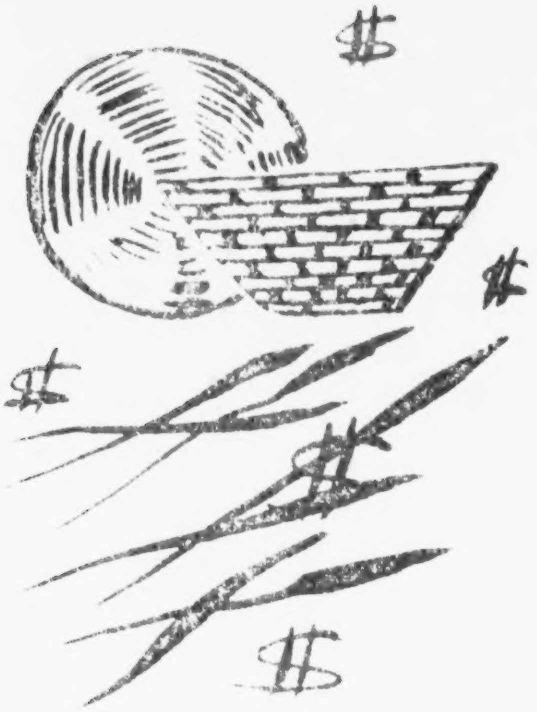
The people of Shageluk live by hunting and fishing for food.



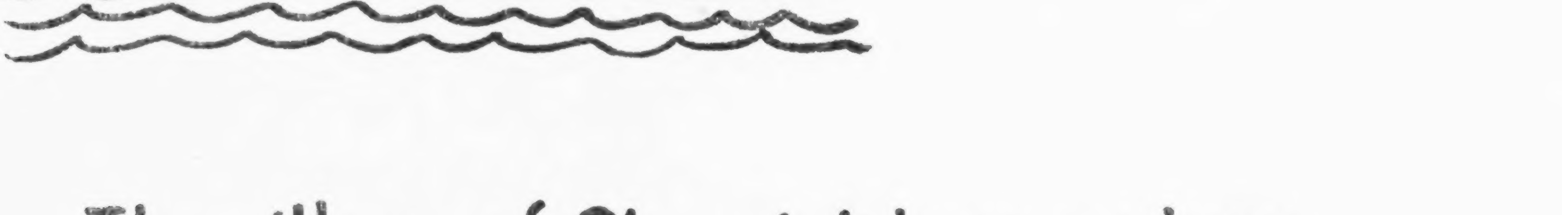


Men earn some money by selling furs of animals they have trapped.



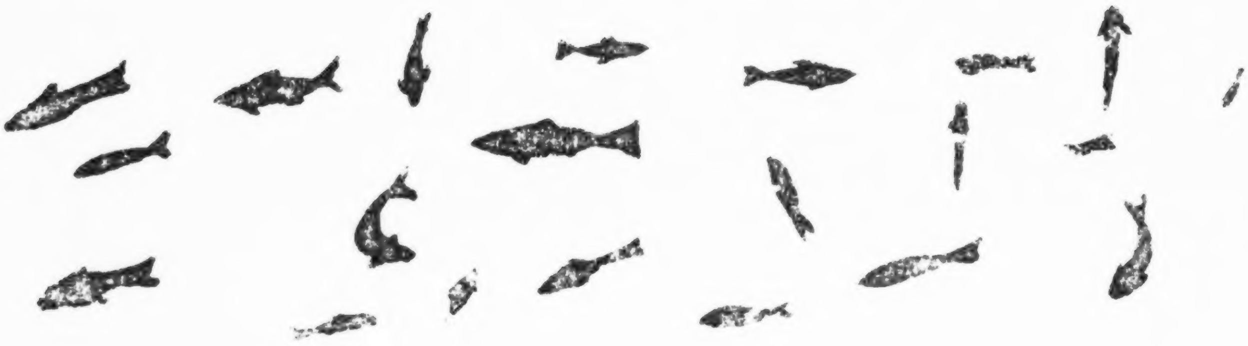


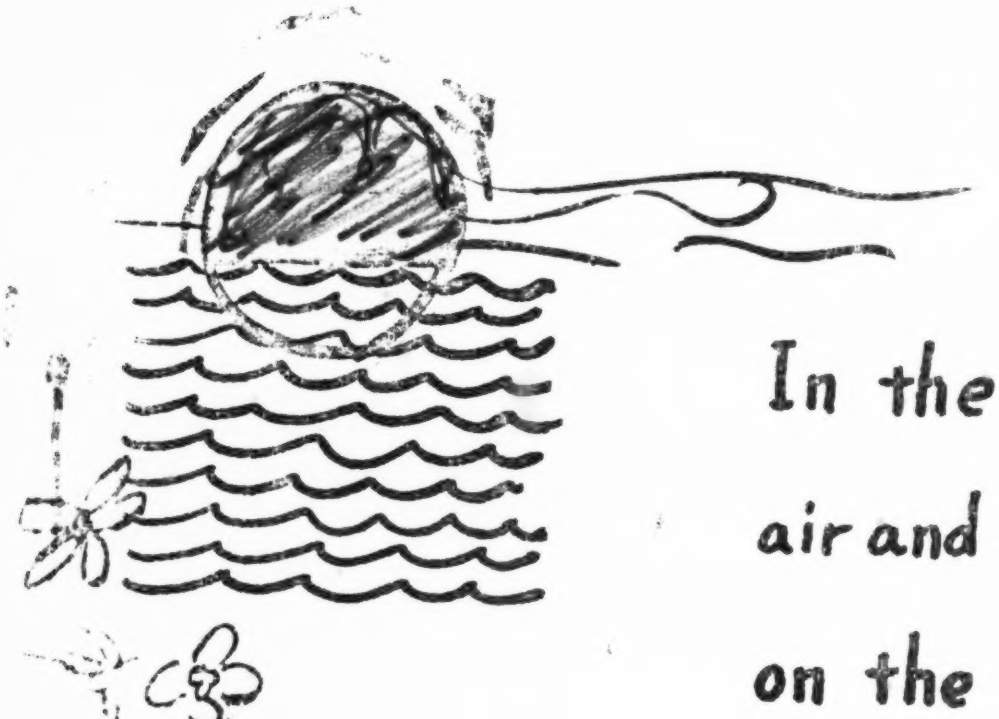
Women earn a little money by making baskets out of grass and selling them to the trading post.



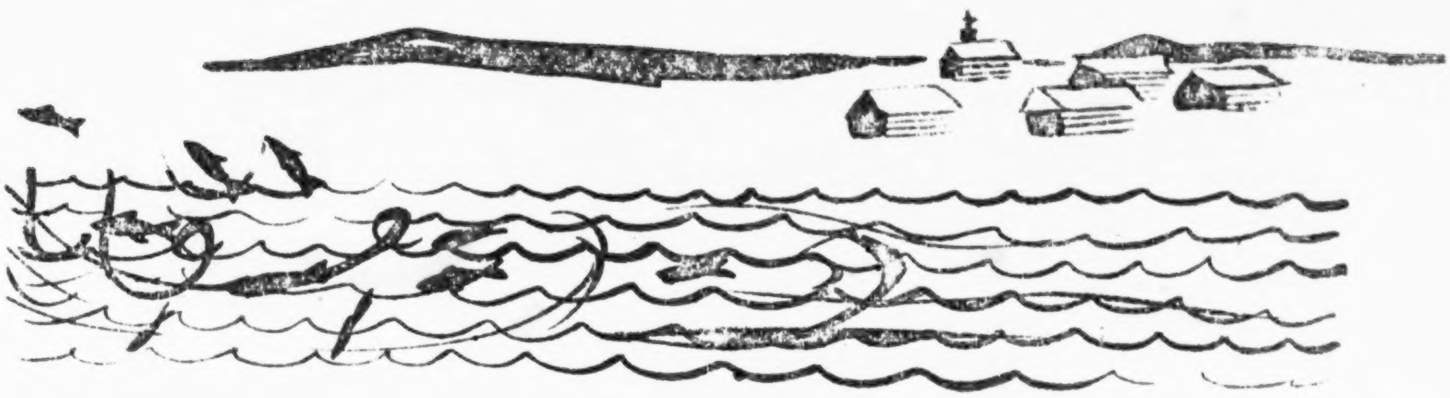
The village of Shageluk is on a river.

In the winter most of the fish in this river migrate down stream.

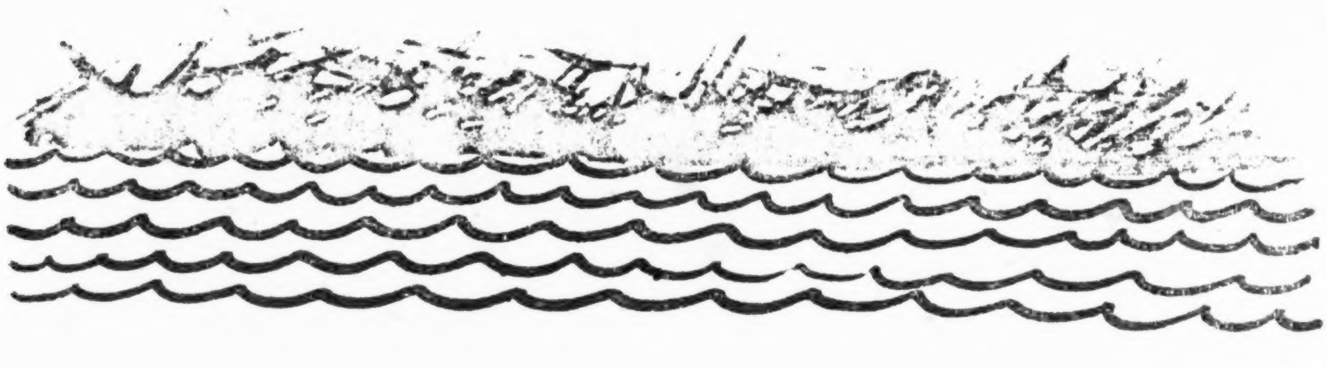




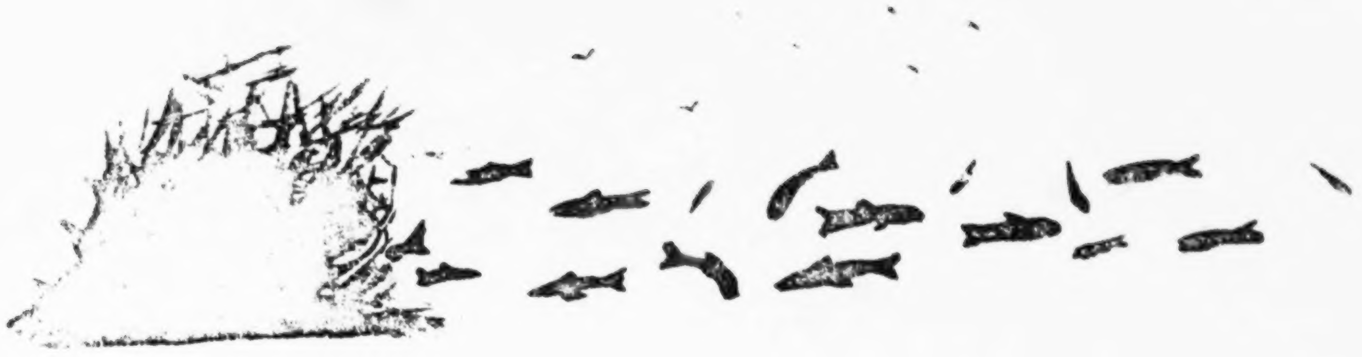
In the spring the warm air and sun melt the ice on the frozen river.



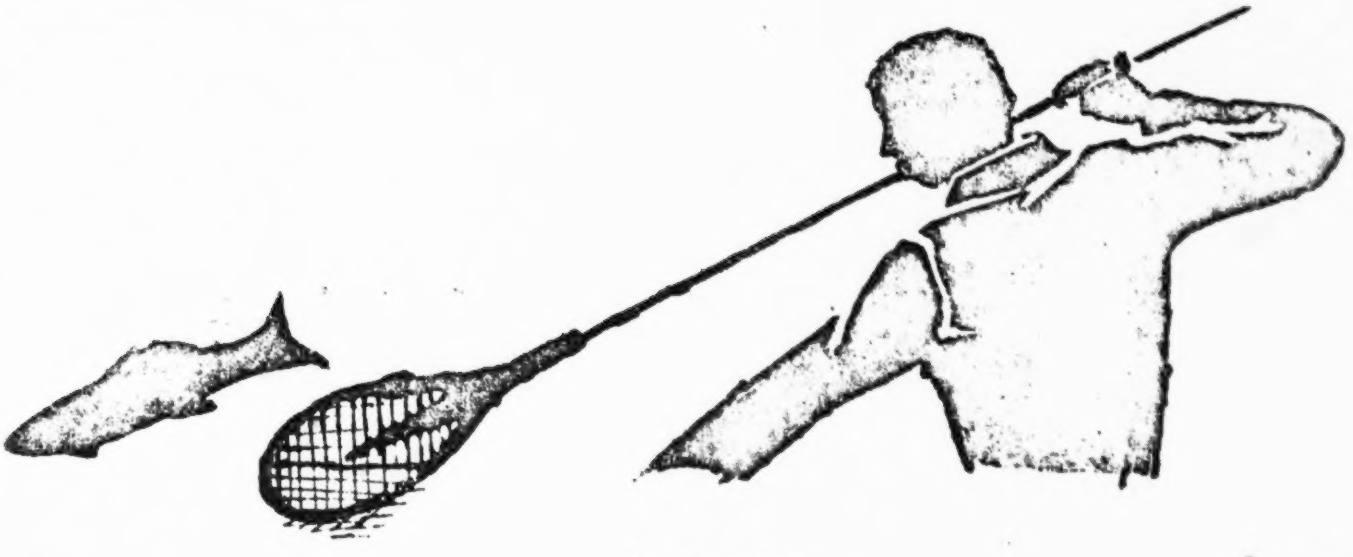
When this happens the water gets warm and the fish start to swim up the river past the village.



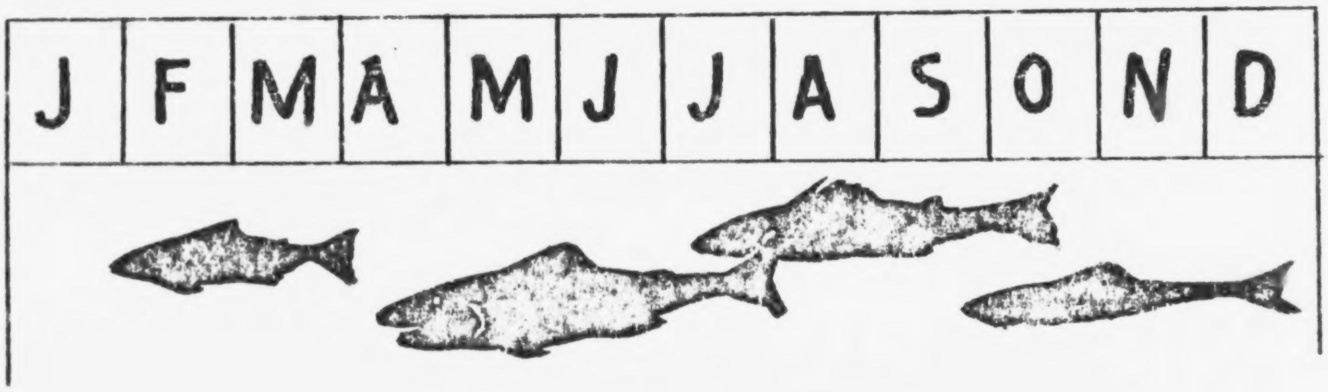
The people of Shageluk dam the river with small trees, shrubs, and willows.



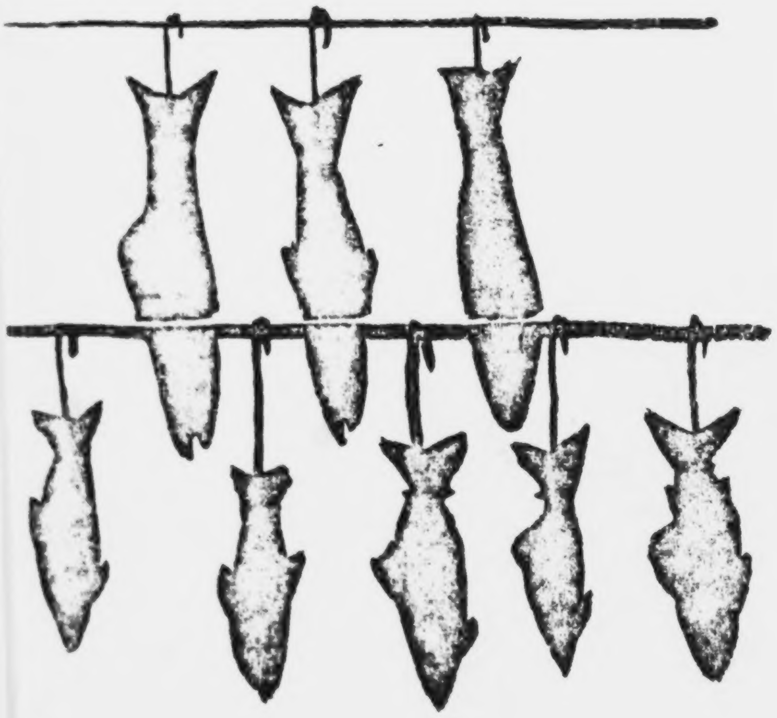
The fish coming up the river have to stop to find a way past the dam.



Men and women and children spear and net fish that they will eat and feed to their sled dogs.

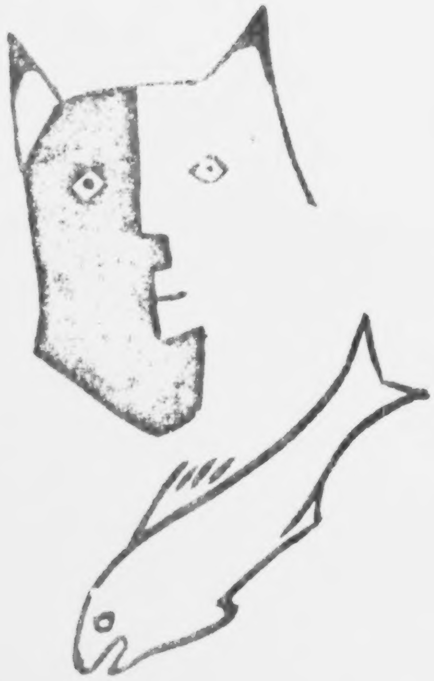


There are so many fish that people of Shageluk can catch enough fish to to last the whole year.

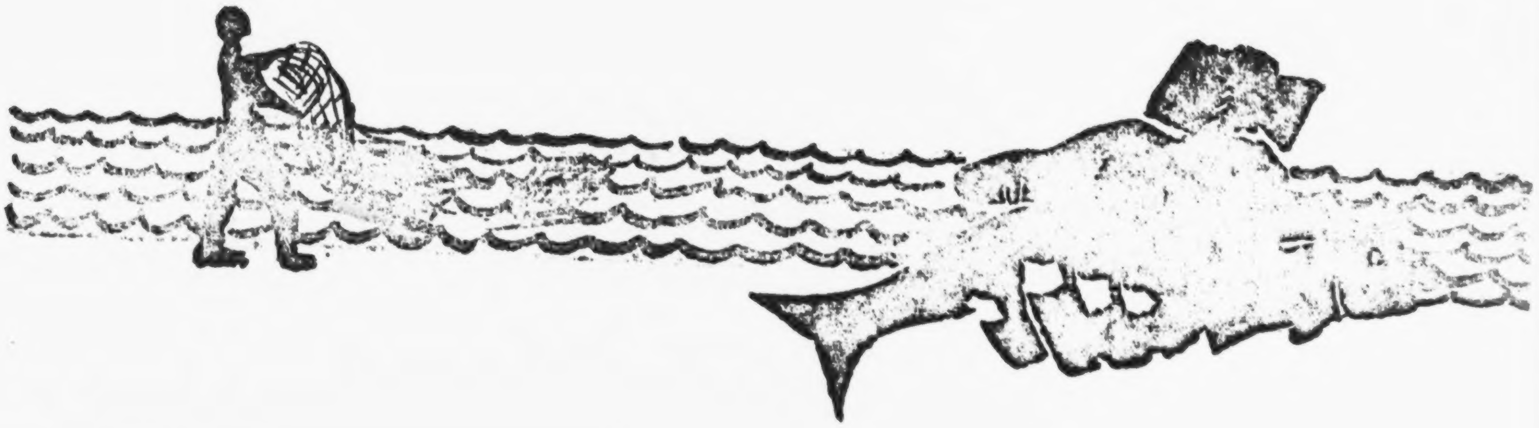


Most of the fish will be split and hung on racks to dry.

After a few days of drying they will be put into sheds where smoke from constantly burning fires will smoke the fish. This smoke preserves the fish.



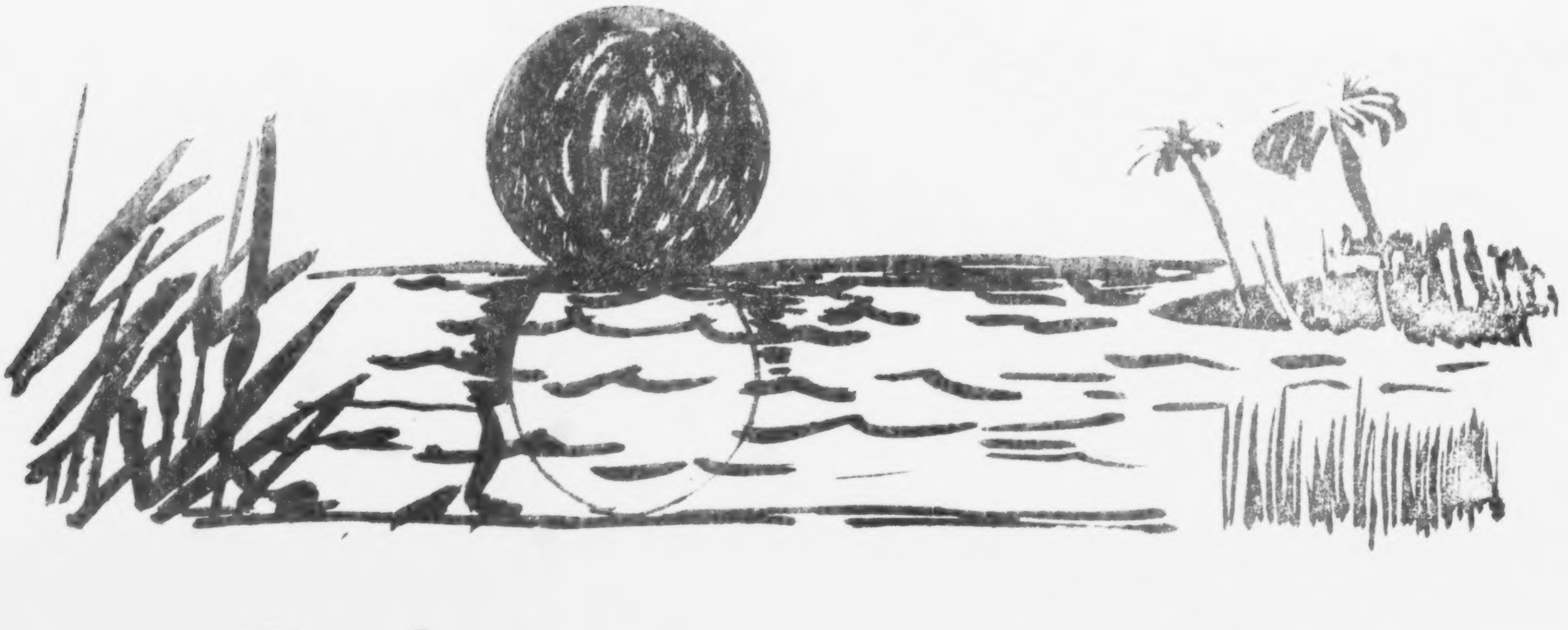
Since the people of Shageluk have many sled dogs they must have many fish in order to feed their dogs throughout the long winter.



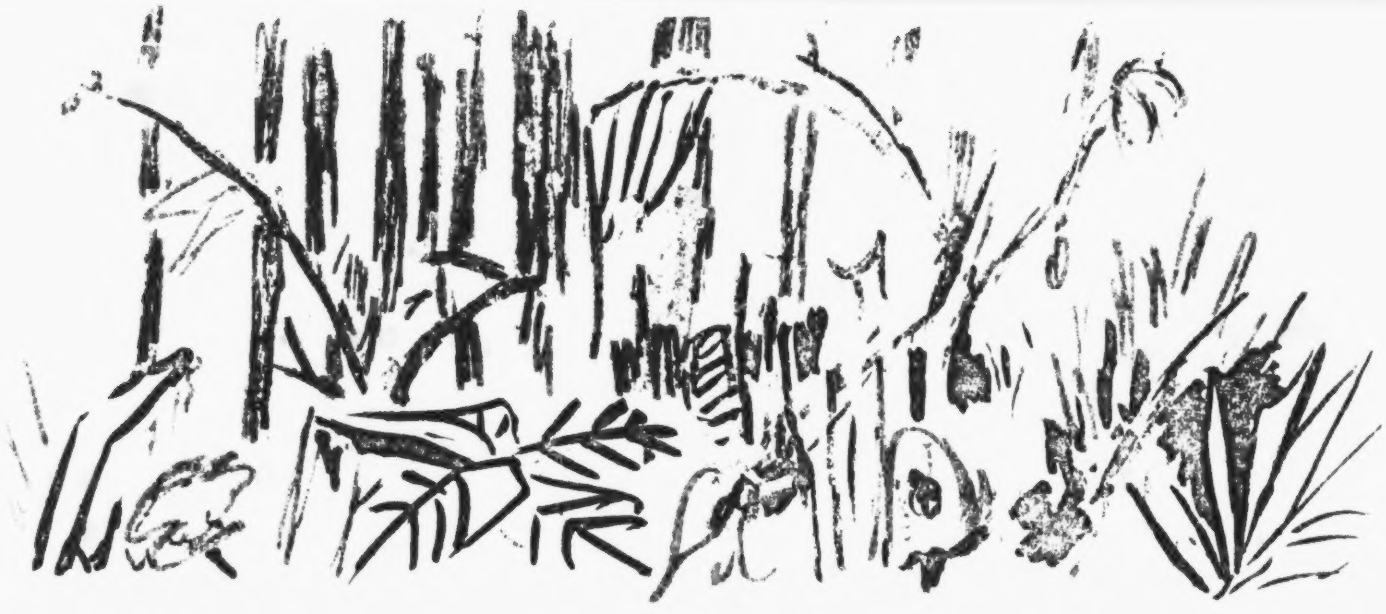
Fish have always been important to people of Shageluk. This is the way they have used fish for many many years.

IFE ALONG THE

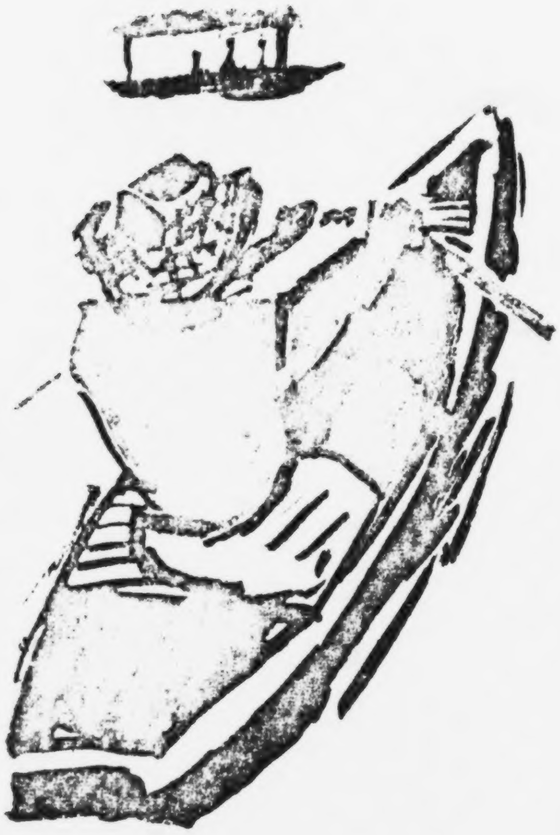
AMAZON



The Amazon river is a long way from the land of the Hopi and the Navaho.



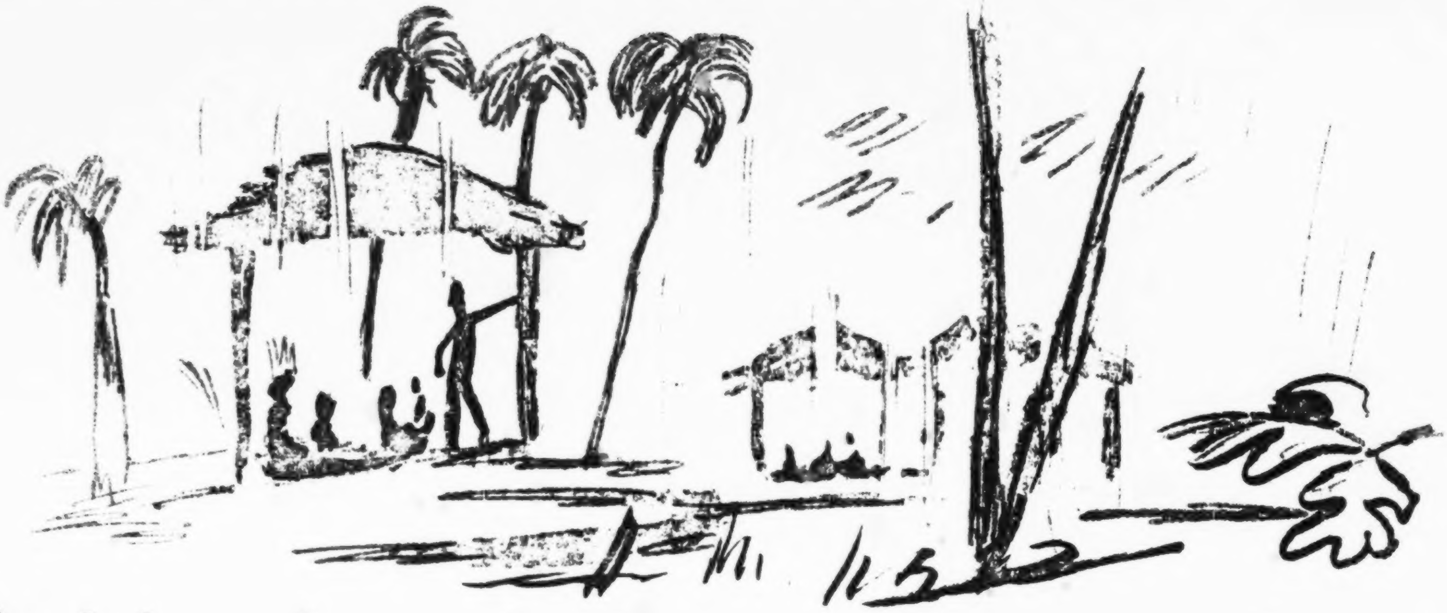
There, plants are so thick and heavy that roads and trails which are not used often become overgrown and lost in the jungle. So, all landmarks are hidden by the tall thick jungle



People must use rivers, streams, and other waterways for travel. It is easier to travel on water than to cut a trail through the jungle.

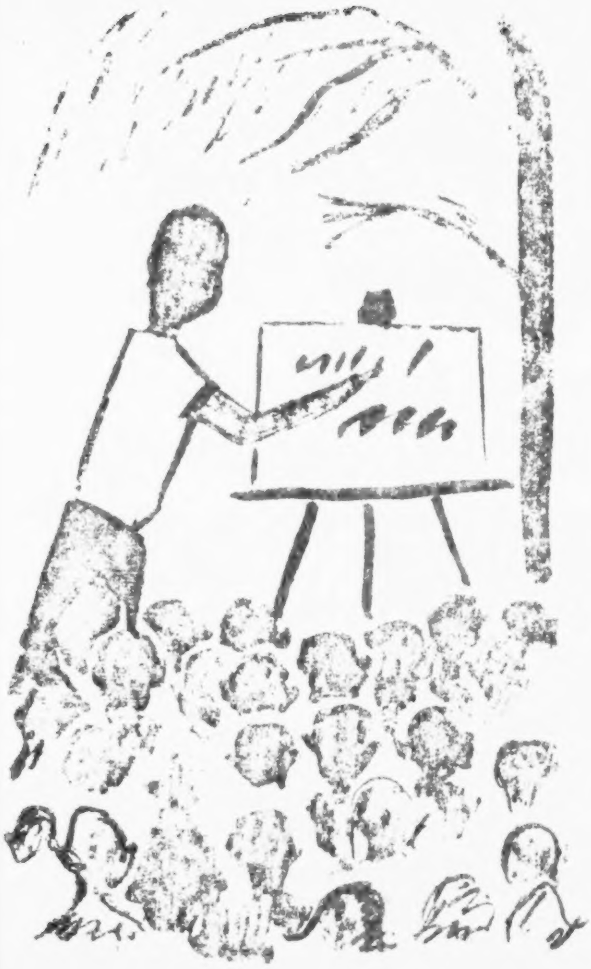
Plants and trees grow quickly because of the heat and rain in this climate.

The jungle steams with humidity. Because it is so hot and humid, people wear little if any clothing.

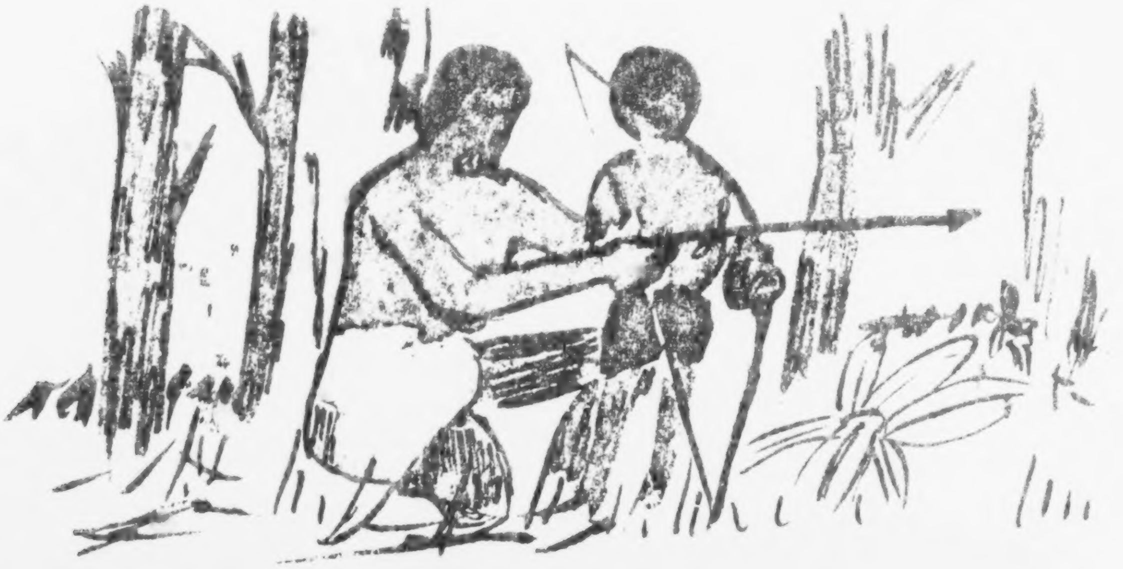


People live in homes that have a roof to protect them from heavy rain. These homes have no walls. They are built that way so people may be cooled by the breezes.

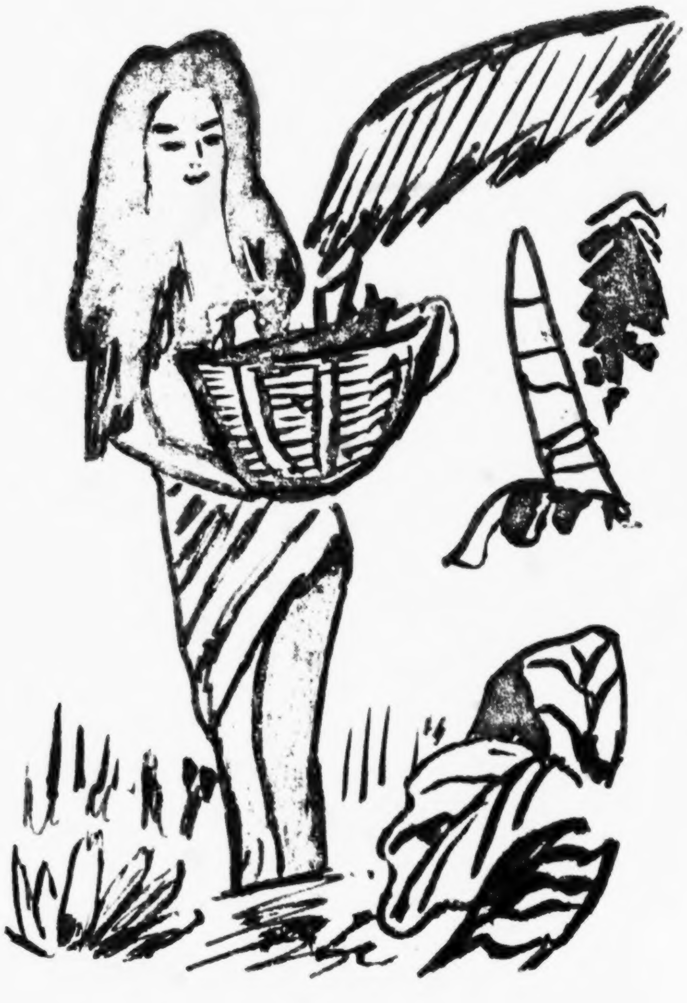
Their homes are made of wooden poles to hold up the roof. The roof is made of big leaves and grasses which are tied together tightly to keep out the rain.



Some natives live near places that have schools. School is sometimes held only one or two times a week. This is because there is only one teacher and many children to teach so he must travel from village to village.



When native children are not in school, native men teach their boys how to hunt and fish.

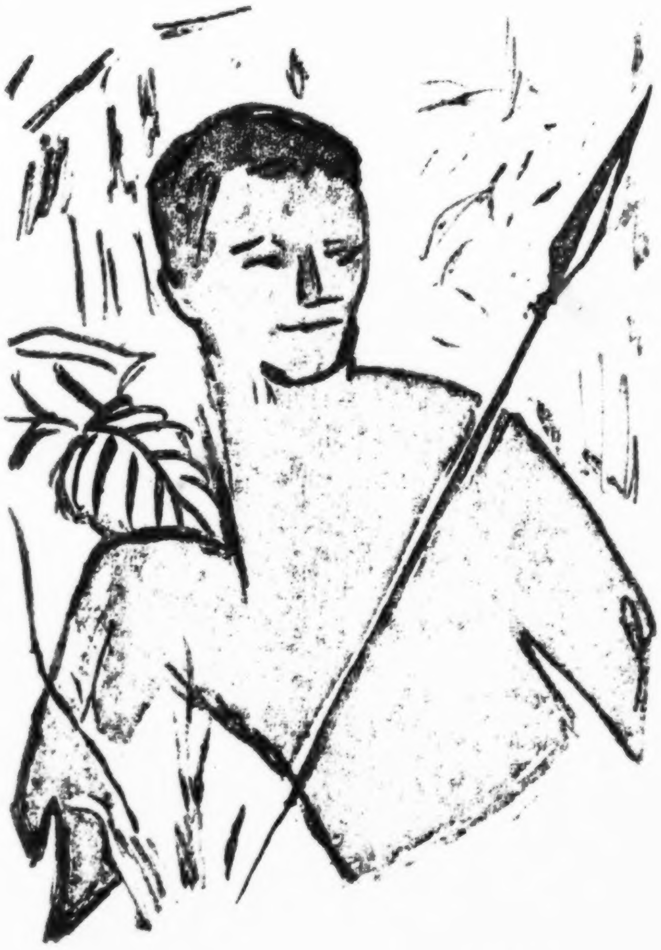


Native women teach their girls that certain plants, fruits, and roots that grow in the jungle are good to eat.

Girls learn how to select, gather and prepare food for eating.

Some villages are so deep in the jungle that teachers cannot reach them.

When this happens, native children only learn how to hunt, find food, and live in the jungle.

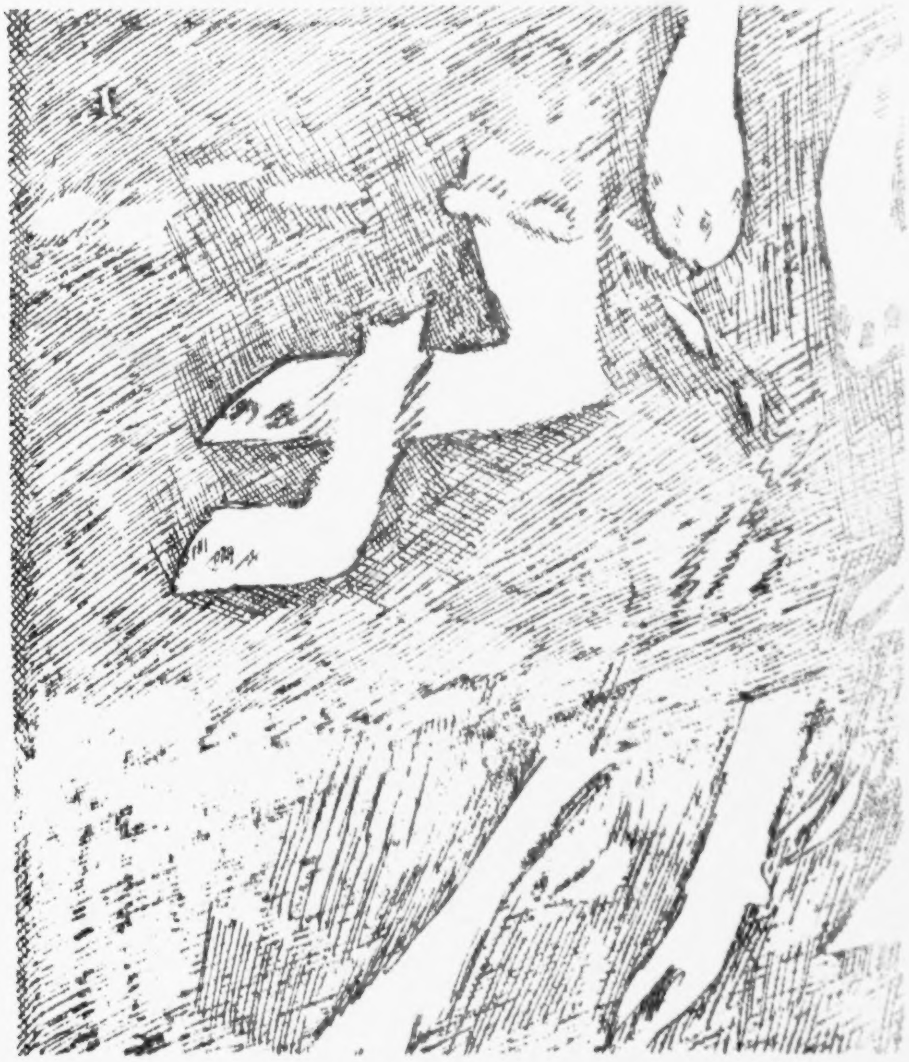


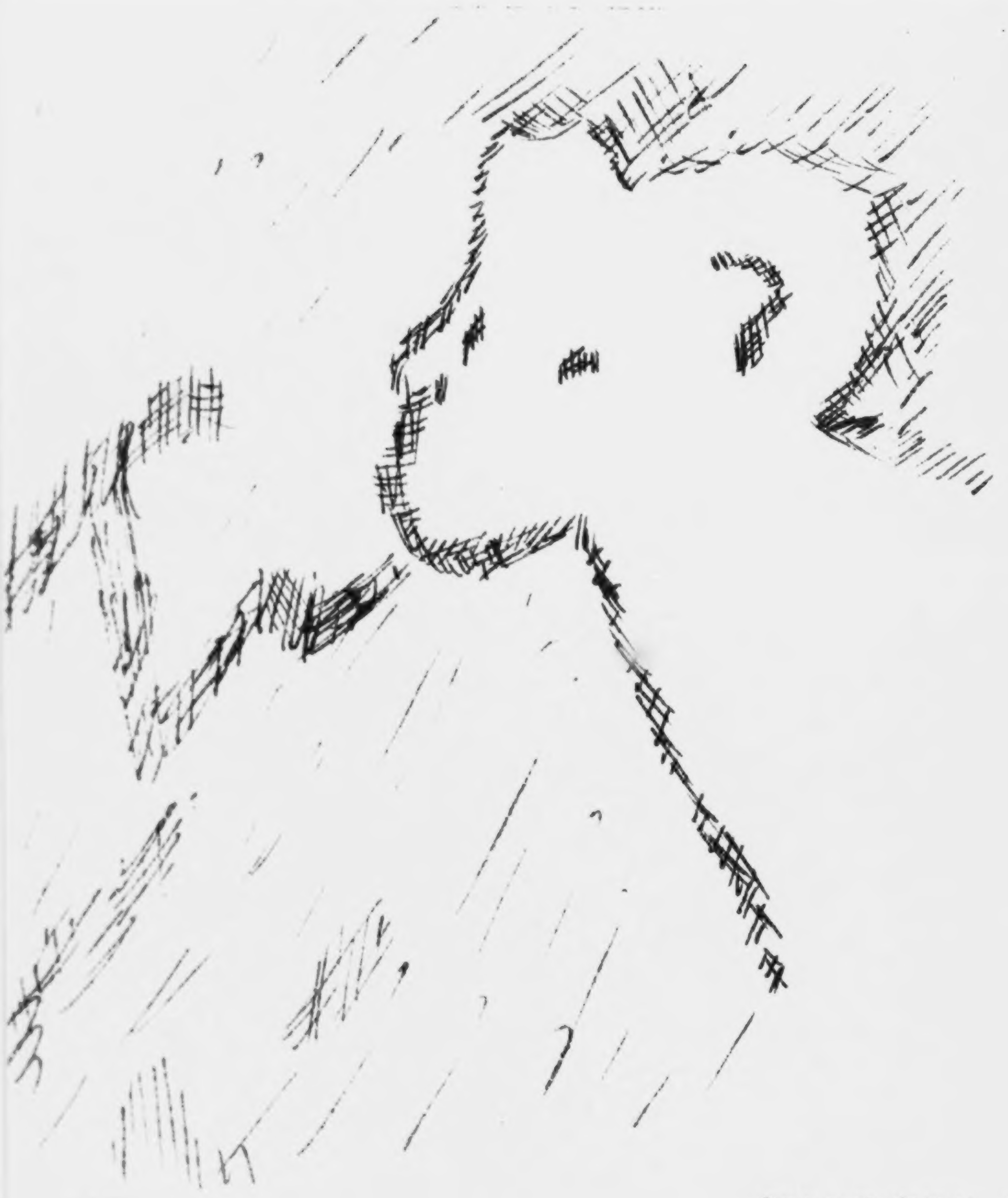
ANIMALS CLIMATE AND TERRAIN

Animals are different from each other.

A dog's teeth are different from sheep's teeth.

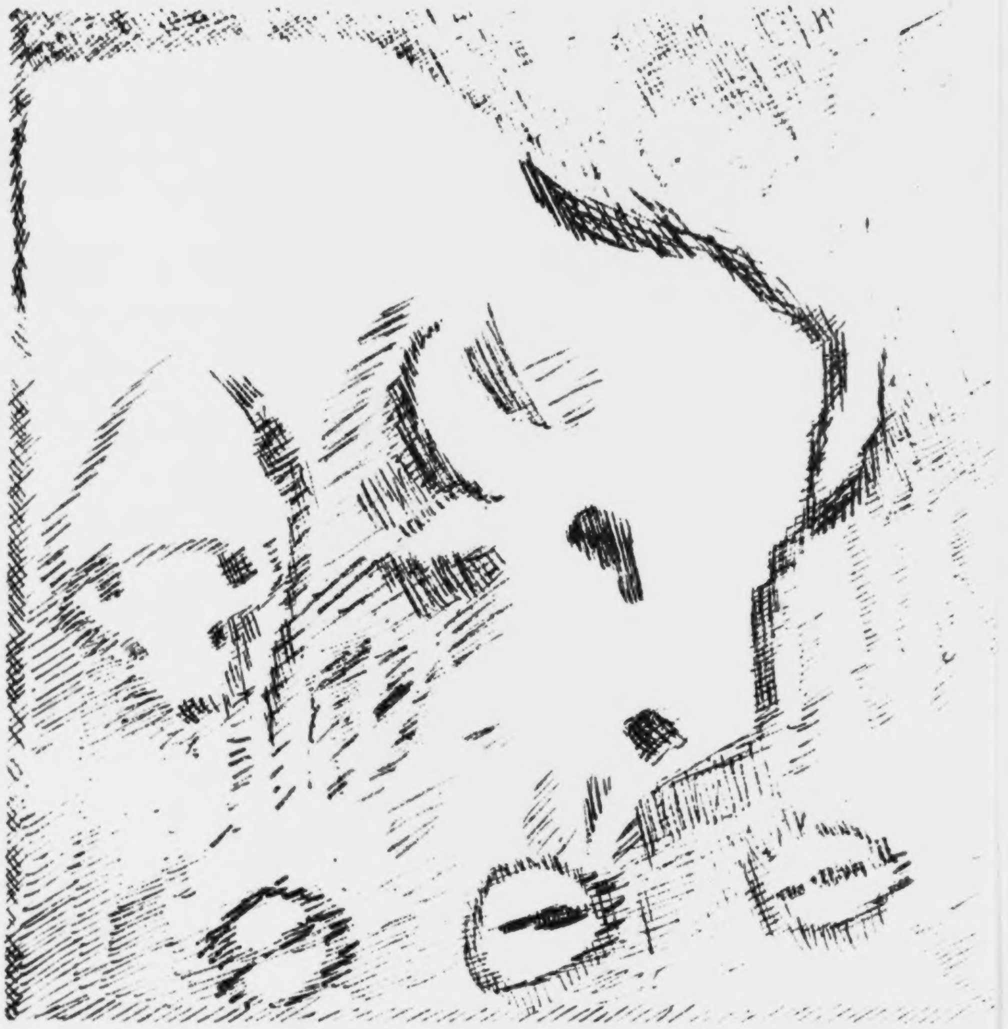
Rabbits paws are different from deer hoofs.



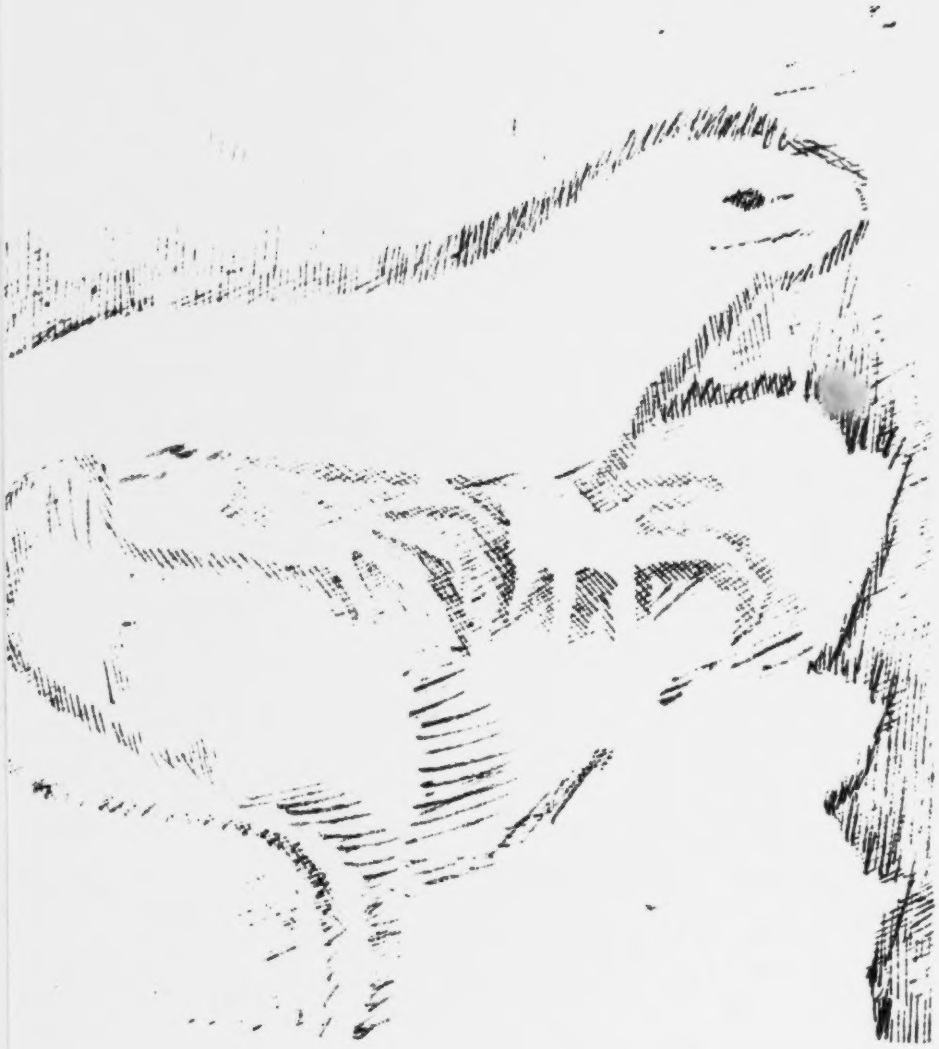


Mountain sheep live
best on steep
rocky mountain to

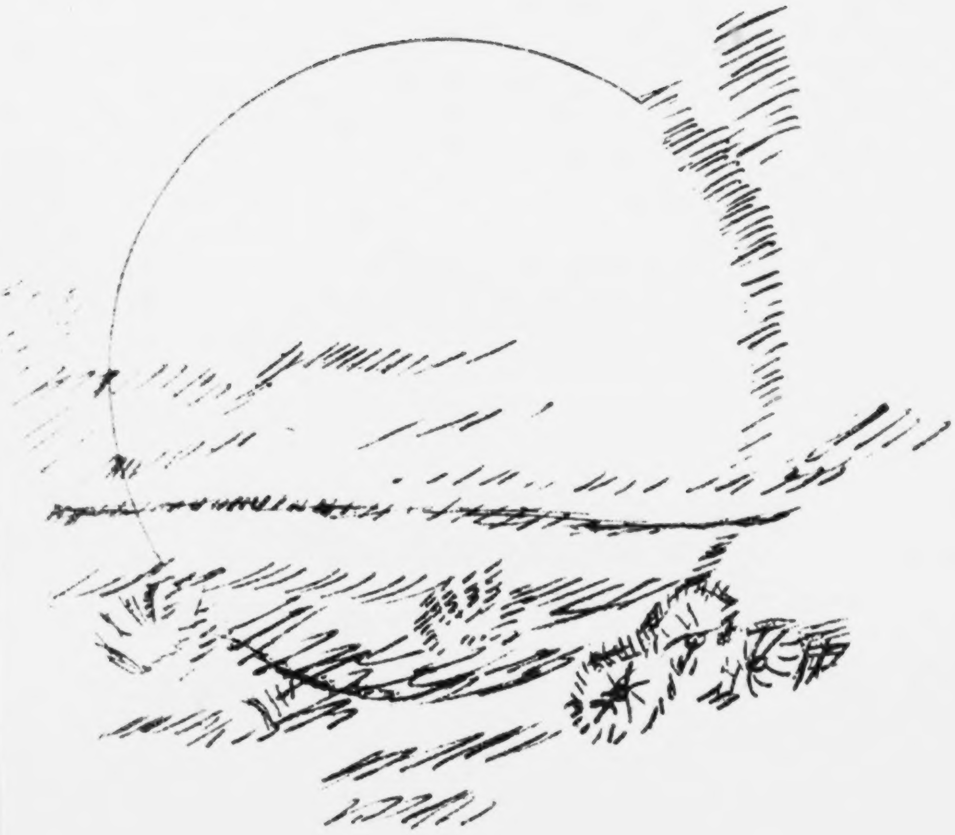
Buffalo live best
on the plains.



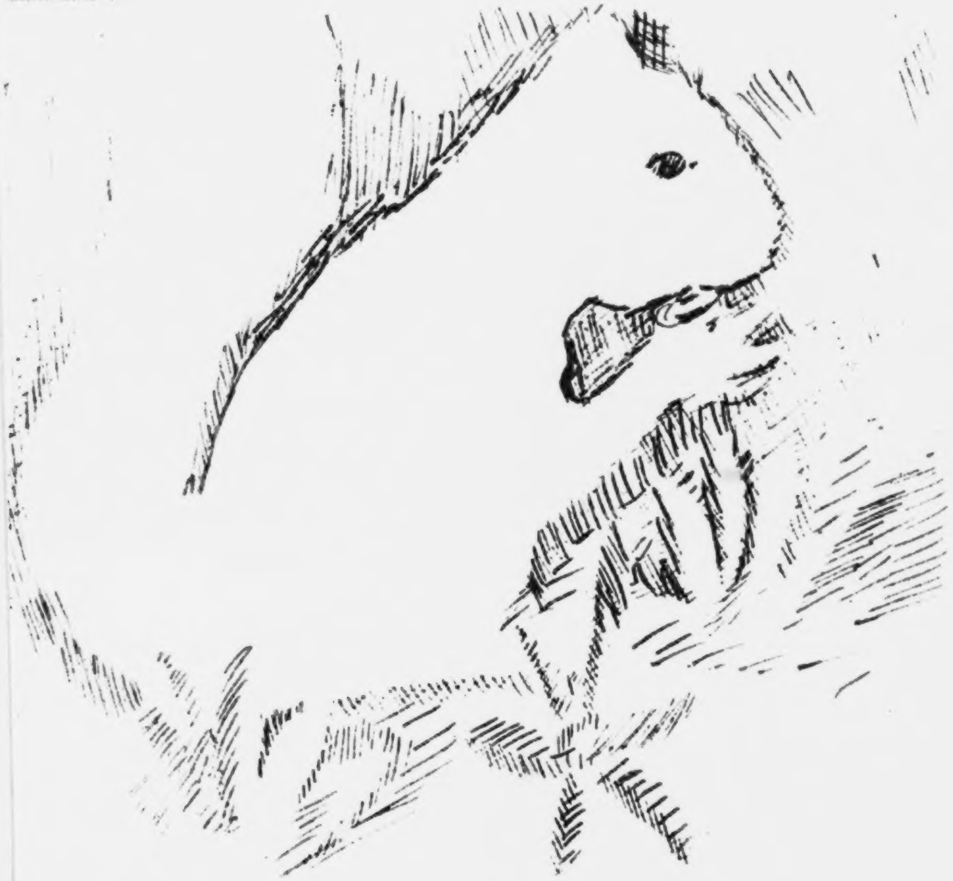
All animals have learned to live best in certain climates and Terrain.



The lizard of arid western states likes living on the south slopes of mountains.



Southern slopes
are hot and dry.



Squirrels prefer the
northern slope of
that same mountain.

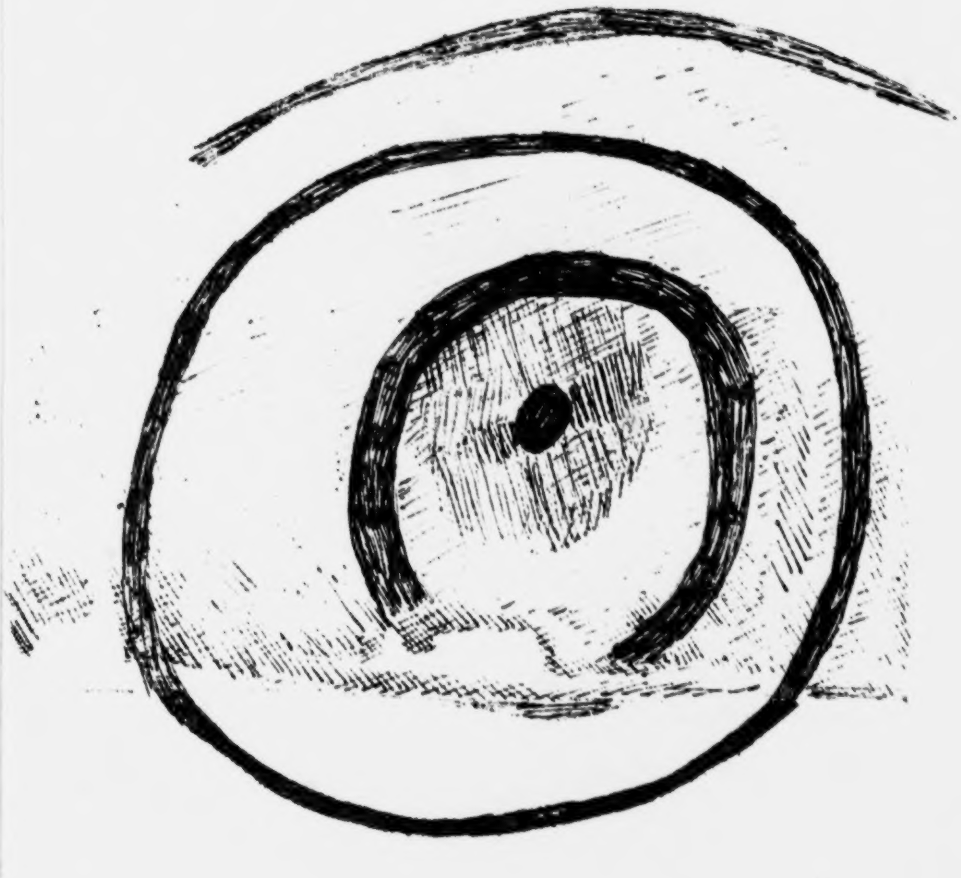
Northern slopes are
cool and have trees
and shrubs.

So on the same
mountain there are
different places whe
different animals hav
learned to live.

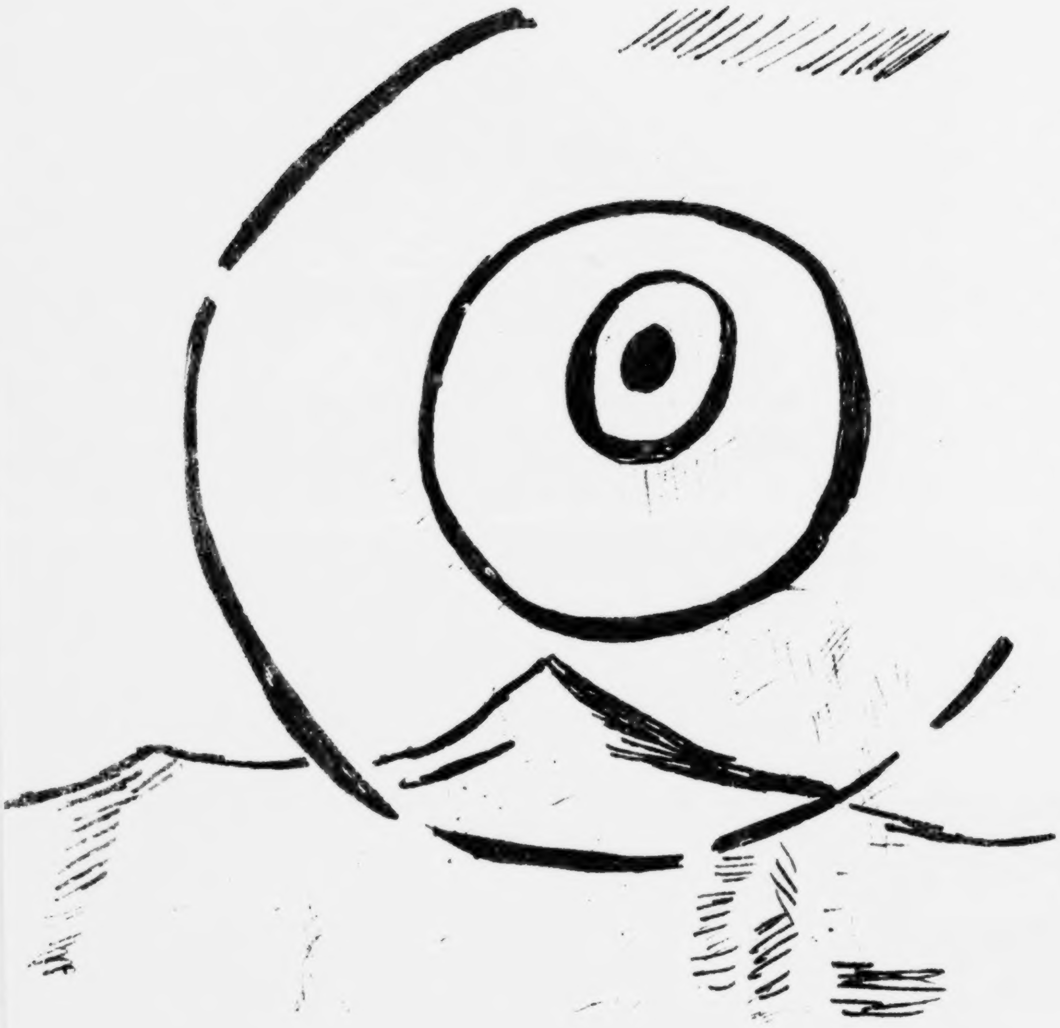
One reason that north slopes and south slopes are different is that western states get most of their moisture during the winter.

During the winter the earth tilts away from the sun.

When this happens the sun
does not travel over head.

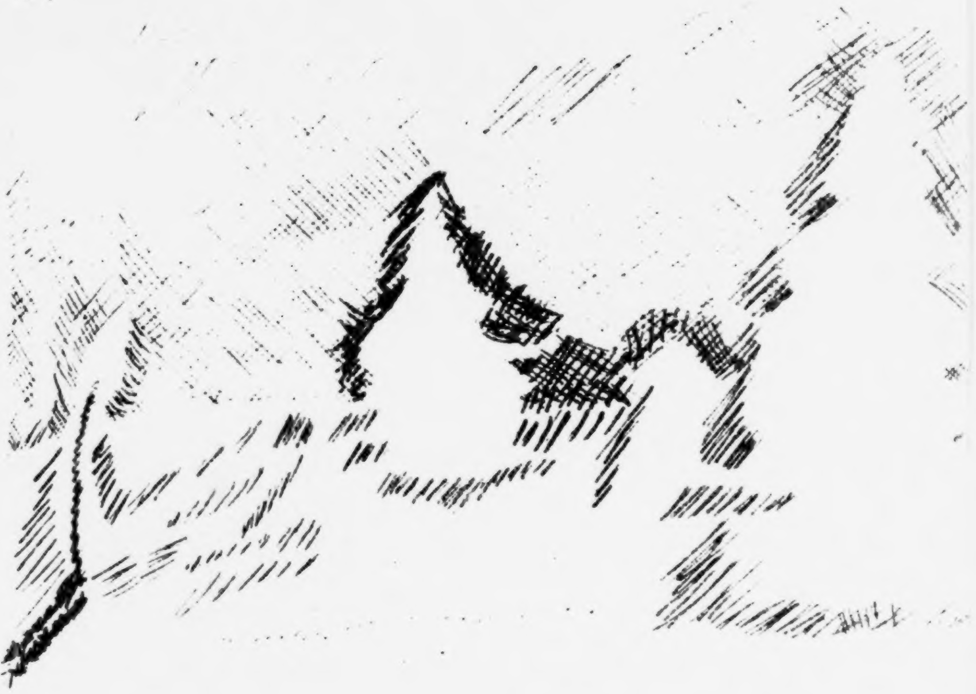


It travels low acro
the southern skies.

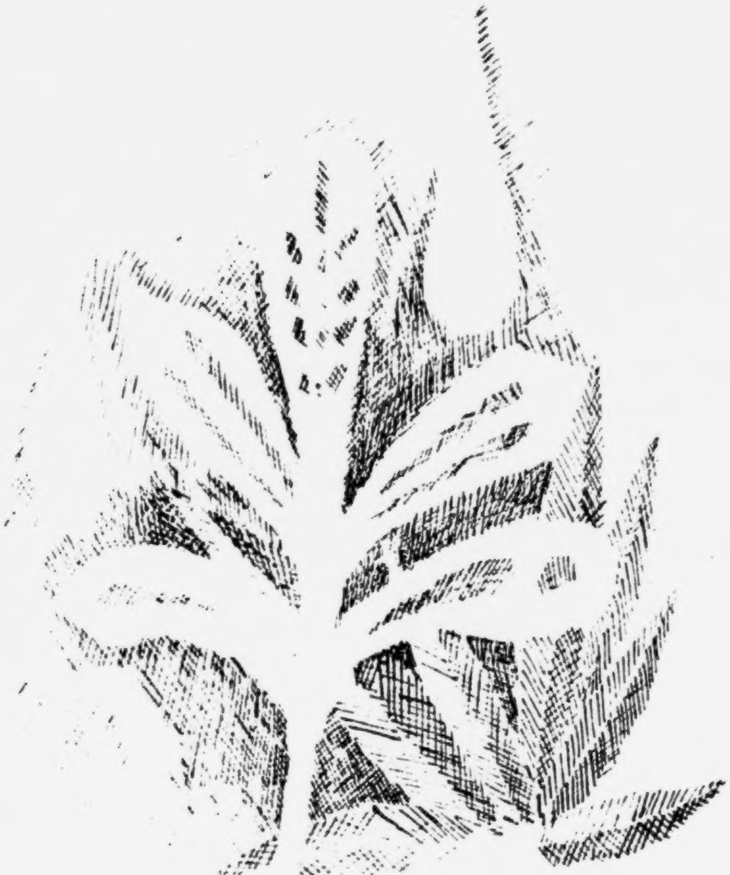


The snow which fal
during the winter
melts and dries on t
southern slopes of
mountains.

The sun cannot shine
on the northern slope
so the snow gets deep



The deep snow stays long into spring and slowly melts.

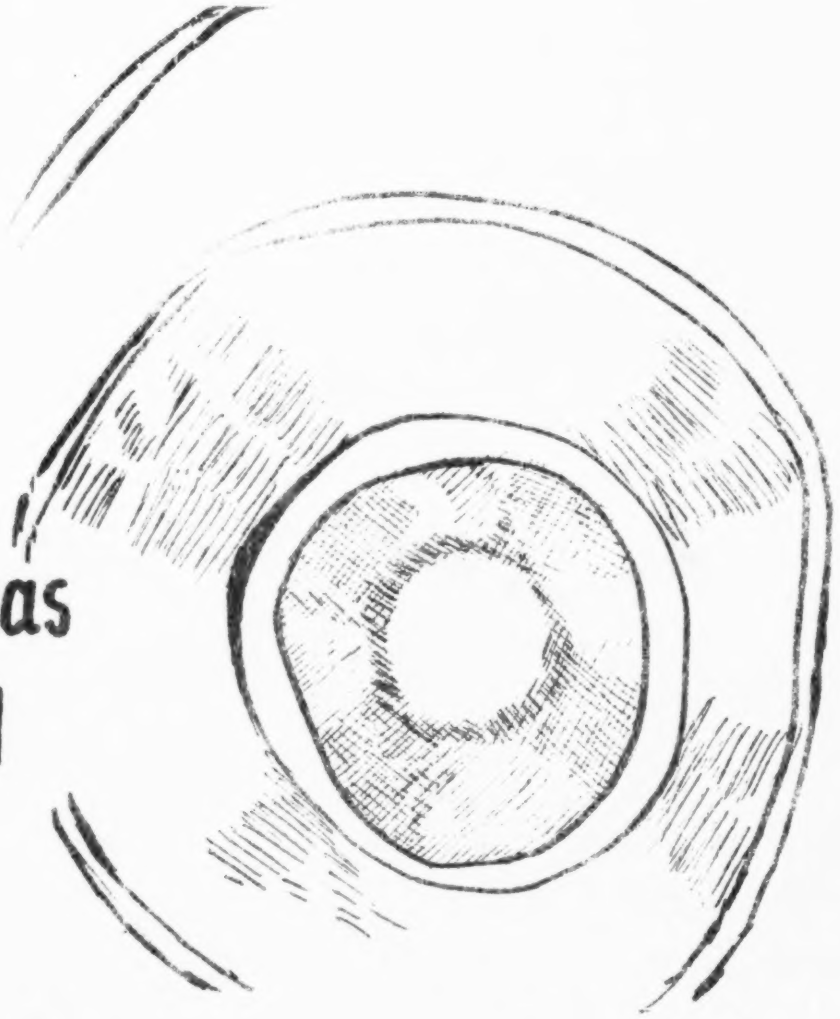


Slow melting snow gives moisture which grasses, shrubs and trees need during early summer.

The leaves of these plants give shade to the ground so that the sun does not dry all the moisture from the soil.

So it is that on the north side of the mountain trees and shrubs grow and it is cool.

The south side of that same mountain has no trees and shrubs and is hot and dry.

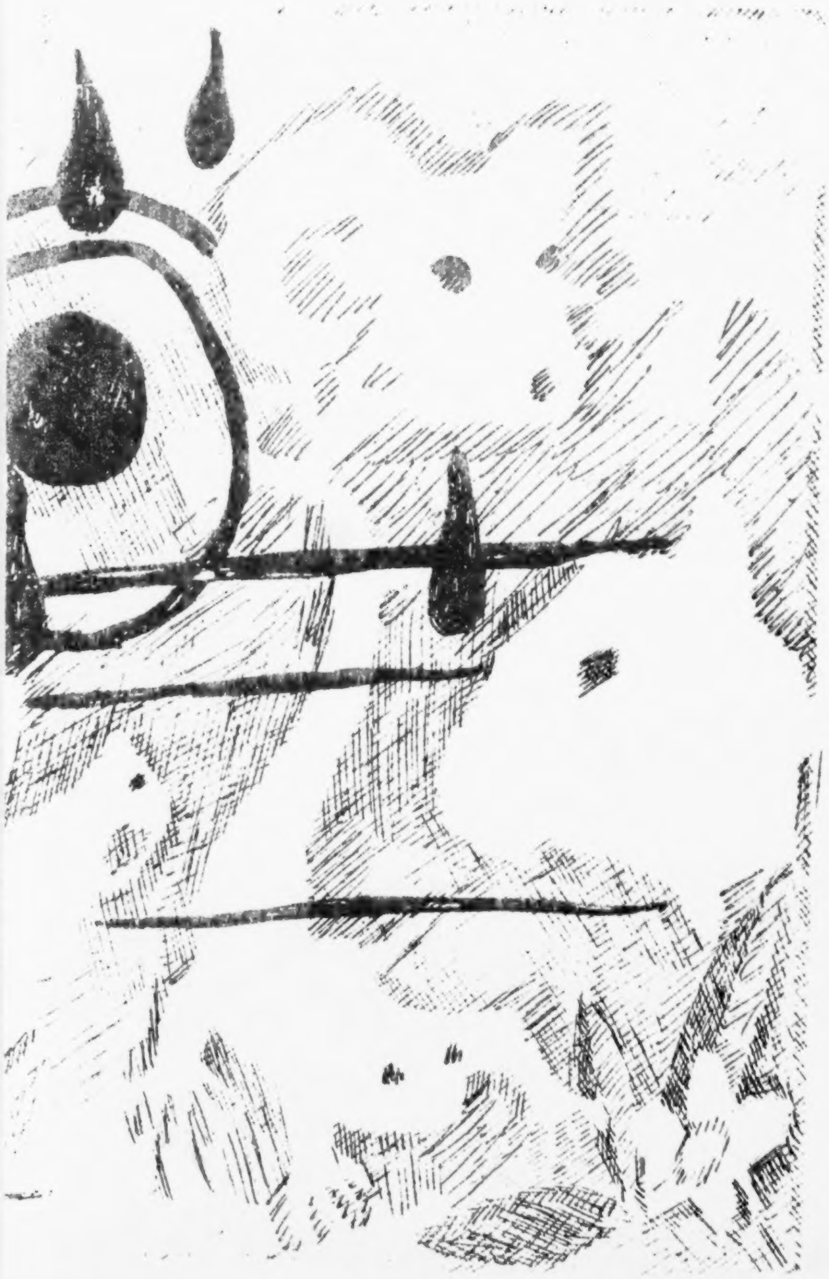


lizards need the hot sun to live because they are cold blooded animals. They live under rocks and eat insects.

Squirrels need trees to make their homes in and acorns and pine nuts to eat.

So even though both live on the same mountain they live in different terrains and climate.

They eat different foods, they need different amounts of water to live.



Animals have learned to live best in certain places.

But man has learned how to live everywhere, in the sky, under water, in the mountains and the desert, in heat and freezing cold and in wet and dry climates